

NOT YET SCHEDULED FOR ORAL ARGUMENT

No. 22-1031 and consolidated cases

U.S. COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

States of Texas, Alabama, Alaska, Arkansas, Arizona, Indiana, Kentucky,
Louisiana, Mississippi, Missouri, Montana, Nebraska, Ohio, Oklahoma,
South Carolina, and Utah,
Petitioners,

v.

U.S. Environmental Protection Agency and Michael S. Regan, in his official
capacity as Administrator, U.S. Environmental Protection Agency,
Respondents.

Petition for Review of a Rule of
the U.S. Environmental Protection Agency

EPA's Final Answering Brief

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

As required by D.C. Circuit Rule 28(a)(1), EPA certifies:

A. Parties and amici

All petitioners, respondents, and intervenors appearing here are listed in petitioners' opening briefs.

In addition, amici for petitioners are: American Royalty Council, American Trucking Associations, California Asphalt Pavement Association, California Business Roundtable, California Manufacturers & Technology Association, Commonwealth of Virginia, ConservAmerica, Louisiana Mid-Continent Oil & Gas Association, National Federation of Independent Business, Pacific Legal Foundation, Petroleum Alliance of Oklahoma, State of Kansas, State of South Dakota, State of Tennessee, State of West Virginia, State of Wyoming, Texas Association of Manufacturers, Texas Independent Producers & Royalty Owners Association, Texas Oil & Gas Association, Texas Royalty Council, The Buckeye Institute, The Sulphur Institute, Two Hundred for Housing Equity, Truck Renting & Leasing Association, and Western States Petroleum Association.

Amici for respondents are: Academic Pediatric Association, American Academy of Allergy, Asthma and Immunology, American Academy of Pediatrics, American Association for Respiratory Care, American College of Chest Physicians, American College of Occupational and Environmental Medicine,

American College of Physicians, American Medical Association, American Public Health Association, American Thoracic Society, Senator Thomas R. Carper, Climate Psychiatry Alliance, Constitutional Accountability Center, Consumer Reports, John Hannon, Institute for Policy Integrity at New York University School of Law, International Council on Clean Transportation, National League of Cities, Margo Oge, Representative Frank Pallone, Jr., and U.S. Conference of Mayors.

B. Rulings under review

Under review is the action “Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards,” 86 Fed. Reg. 74434 (Dec. 30, 2021).

C. Related cases

There are no related cases within the meaning of Circuit Rule 28(a)(1)(C). These consolidated cases have been designated for argument on the same day and before the same panel as *NRDC v. National Highway Traffic Safety Administration*, Case No. 22-1080 and consolidated cases. Order (Sept. 22, 2022).

/s/ Daniel R. Dertke
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GLOSSARY

Auto Alliance Comments	Comments from Alliance for Automotive Innovation (Sept. 27, 2021)
CO ₂	Carbon dioxide
Corn Ass’n Comments	Comments of the Illinois, Iowa, Missouri, Nebraska, Kentucky, Michigan, Wisconsin, Kansas, and Indiana Corn Growers Ass’ns (Sept. 27, 2021)
EPA	U.S. Environmental Protection Agency
Fuel Br.	Brief for Private Petitioners
JA	Joint Appendix
Nat’l Corn Ass’n Comments	Comments from Nat’l Corn Growers Ass’n (Sept. 27, 2021)
NHTSA	National Highway Traffic Safety Administration
Ohio et al. Comments	Comments from Ohio and 15 other states (Sept. 27, 2021)
State Br.	Brief for State Petitioners

INTRODUCTION

The Clean Air Act directs the Environmental Protection Agency to set and periodically revise emission standards for any “class or classes” of motor vehicles, and to account for “development and application of the requisite technology” when doing so. 42 U.S.C. § 7521(a)(1), (2).

Heeding that direction, EPA since 2010 has set and revised motor-vehicle emission standards for greenhouse gases based on feasible emission-control technologies, including vehicle electrification. EPA did so again in the disputed rule: After balancing technology lead time, compliance costs, and other factors, it tightened standards for light-duty vehicles.

EPA then left it to each automaker to choose what technologies it will use to comply with the standards. That choice is real and valuable. Automakers enjoy even more flexibility because compliance is based on emissions averaged over entire vehicle fleets. These flexibilities, moreover, have been part of EPA’s vehicle-emissions program for decades. Notably, automakers have intervened on EPA’s behalf to defend standards that regulate them.

Petitioners, in contrast, are States, fuel producers, and other parties *not* regulated by the standards. State Petitioners lack standing and all Petitioners’ asserted interests fall outside Section 7521(a)’s zone of interests. And Petitioners’ challenges to EPA’s adoption of standards that account for electrification, and that

are in the form of fleet averages, fail for yet more threshold reasons: EPA did not reopen these longstanding structural elements of its standards and Petitioners failed to raise their arguments during the comment period.

The merits of Petitioners’ statutory arguments are equally deficient. Section 7521(a) directs EPA to set standards that account for feasible emission-control technologies—without limiting what those technologies can be. Yet Petitioners insist that some electrification technologies cannot be considered at all—while implicitly conceding that EPA can consider other technologies. And though Section 7521(a) directs EPA to set standards for a “class or classes” of vehicles, they insist that the standards can apply only to individual vehicles. The Court should decline to rewrite the statute.

Nor does the major-questions doctrine give license to override the text. The doctrine is reserved for a handful of “extraordinary” cases. *West Virginia v. EPA*, 142 S. Ct. 2587, 2609 (2022). That is not this case. Far from doing something unexpected or novel, EPA merely tightened existing standards. In doing so it acted in the heartland of its Section 7521(a) authority, using the same regulatory approach that it has used in every vehicle greenhouse-gas rule. The major-questions doctrine thus does not apply. In any case, Congress authorized EPA’s approach with the necessary clarity.

Finally, as the record shows, there is nothing arbitrary or capricious about the disputed rule. The Court should reject the challenges.

STATEMENT OF JURISDICTION

The Clean Air Act authorizes review of certain actions within 60 days of publication in the Federal Register. 42 U.S.C. § 7607(b)(1). State Petitioners, however, lack standing. *See* Argument § I.A. In addition, the Court lacks jurisdiction over all Petitioners' attacks on EPA's statutory authority to establish standards that account for electrification, and to establish standards in the form of fleet averages, because EPA established its standard-setting framework in earlier actions and that framework was not reopened in the rule under review, 86 Fed. Reg. 74434 (Dec. 30, 2021). Review is thus unavailable under 42 U.S.C. § 7607(b)(1). *See* Argument § II.A. The Court has jurisdiction to review Petitioners' arguments that the revised standards are arbitrary.

ISSUES PRESENTED

The threshold issues are:

1. Should the petitions be dismissed because (a) State Petitioners lack Article III standing where their alleged injuries are neither sufficiently concrete nor redressable; and (b) all Petitioners' pecuniary and other interests fall outside Section 7521(a)'s zone of interests?

2. Should the Court decline to consider Petitioners’ challenges to EPA’s fundamental approach to regulating greenhouse-gas emissions where (a) EPA adopted that approach in 2010 and did not reopen it here; and (b) Petitioners failed to object to that approach during the comment period?

If the Court were to go further, the issues are:

3. Does Section 7521(a) authorize EPA to account for feasible emission-control technologies—including electrification—when setting greenhouse-gas emission standards?
4. Does Section 7521(a) authorize EPA to set greenhouse-gas emission standards that apply fleetwide; that include averaging, banking, and trading provisions; and that average in electric vehicles?
5. In the disputed rule, did EPA act reasonably when:
 - a. For all vehicles, electrified or not, it considered upstream emissions when assessing the standards’ environmental impact but not when assessing compliance; and
 - b. It assessed the standards’ costs and benefits?

STATUTES AND REGULATIONS

Pertinent statutes, regulations, and legislative history are in the addendum to this brief.

STATEMENT OF THE CASE

I. Legal framework.

Title II of the Clean Air Act authorizes EPA to regulate emissions of certain air pollutants from mobile sources. 42 U.S.C. §§ 7521-7590. One of Title II's key provisions, Section 7521(a), directs EPA to

prescribe (and from time to time revise) ... standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles ... , which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. Such standards shall be applicable to such vehicles and engines for their useful life ... whether [they] are designed as complete systems or incorporate devices to prevent or control such pollution.

Id. § 7521(a)(1). The standards “shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period.” *Id.* § 7521(a)(2). That is, the standards should be technologically feasible for automakers.

The term “motor vehicles” means “any self-propelled vehicle designed for transporting persons or property on a street or highway.” *Id.* § 7550(2). For decades, Congress and EPA have generally divided motor vehicles into classes based on weight and purpose (like moving passengers or cargo). *See* 40 C.F.R. § 86.1803-01; 81 Fed. Reg. 73478, 73485 (tbl. I-1) (Oct. 25, 2016); Clean Air

Amendments of 1970, Pub. L. No. 91-604, § 6, 84 Stat. 1676, 1690-93 (1970); 36 Fed. Reg. 22369, 22449/3 (Nov. 25, 1971).

EPA has been regulating “criteria” pollutants like nitrogen oxides and particulate matter under Section 7521(a) since 1971. *Int’l Harvester Co. v. Ruckelshaus*, 478 F.2d 615, 623 (D.C. Cir. 1973); *see* 40 C.F.R. §§ 50.4-50.19.

In 2009, EPA made an endangerment finding for motor-vehicle greenhouse-gas emissions. 74 Fed. Reg. 66496 (Dec. 15, 2009). This finding triggered EPA’s duty under Section 7521 to regulate greenhouse-gas emissions. *See Massachusetts v. EPA*, 549 U.S. 497, 528 (2007). In 2010 EPA promulgated its first set of greenhouse-gas standards for light-duty vehicles, a category consisting of passenger cars and light-duty trucks. 75 Fed. Reg. 25324 (May 7, 2010); 40 C.F.R. § 86.1803-01.¹ Three more sets of light-duty standards followed, in 2012, 2020, and (disputed here) 2021. *Infra* Table 1.

Petitions for review of Section 7521 standards must be filed within 60 days of the rule’s publication in the Federal Register. 42 U.S.C. § 7607(b)(1). If the petition depends solely on grounds arising after that deadline, the petition must be filed within 60 days after those grounds arise. *Id.* In addition, the Court can

¹ In the United States, light-duty vehicles account for 58% of the greenhouse-gas emissions of the transportation sector, the nation’s biggest emitter. 86 Fed. Reg. at 74446/1.

consider only an objection that was “raised with reasonable specificity during the period for public comment.” *Id.* § 7607(d)(7)(B).

II. Electrification and other emission-control technologies.

Section 7521(a) standards are meant to reduce emissions and protect the public. 86 Fed. Reg. at 74499/2. These standards should be “a function of the degree of [emission] control required, not the degree of technology available today.” S. Rep. No. 91-1196, at 24 (1970). EPA is thus “expected to press for the development and application of improved technology rather than be limited by that which exists today.” *Id.*; *see NRDC v. EPA*, 655 F.2d 318, 328 (D.C. Cir. 1981) (recognizing this legislative history); *Int’l Harvester*, 478 F.2d at 635 (noting congressional intent that automakers would be “force[d] ... to study new types of engines and new control systems”).

Spurred by EPA’s standards, emission-control technologies have improved a great deal. *See* 86 Fed. Reg. at 74451/2. Advances in and commercialization of a range of technologies—in engine design, transmissions, aerodynamics, air-conditioning systems, and more—have reduced emissions of many pollutants. *See id.*; 79 Fed. Reg. 23414, 23441/2, 23469/1-71/2 (Apr. 28, 2014).

Electrification is another emission-control technology that has seen major improvements. It can reduce or even eliminate gasoline consumption and thus all

tailpipe pollutants. As of 2021, automakers had committed more than \$330 billion to vehicle electrification. Auto Alliance Comments at 3, JA0571.

Vehicle electrification, which has been enjoying growing popularity, occurs across a spectrum and involves a range of technologies. Electrification can thus apply to specific accessories (like electric power steering) or the entire powertrain (like battery electric vehicles), and everything in between. 85 Fed. Reg. 24174, 24469/1 (Apr. 30, 2020). Some examples:

- Mild hybrid electric vehicles use electricity for supplemental power in certain functions, like acceleration;
- Strong hybrid electric vehicles can drive short distances primarily on electricity;
- Plug-in hybrid electric vehicles can drive varied distances on electricity and plug into outlets to recharge; and
- Battery electric vehicles run solely on electricity.

See 40 C.F.R. § 86.1803-01 (defining these vehicles); *see also* 77 Fed. Reg. 62624, 62705/1-06/1 (Oct. 15, 2012); 85 Fed. Reg. at 24469/1.

Since at least the late 1960s, Congress has promoted electrification as an alternative to the internal-combustion engine. In 1967, just two years after it first authorized federal emission standards for motor vehicles, Congress was working on research-and-development programs for vehicle electrification. *See* S. Rep. No.

90-403, at 59-61 (1967). As part of that effort, Congress held hearings on “electric vehicles and other alternatives to the internal combustion engine.” Joint Hearings Before the Committees on Commerce and Public Works for S. 451 and S. 453, 90th Cong. 297 (1967) (internal capitalization omitted). Later that year, a Senate report approvingly noted (overly optimistically) that electric vehicles could make up about a third of the market by 1985. S. Rep. No. 90-403, at 60 (1967). A few years later, Congress amended the Clean Air Act to create a research program for new vehicle technology, including “low emission alternatives to the present internal combustion engine.” 42 U.S.C. § 7404(a)(2)(B); 84 Stat. at 1676.

Congress did not limit its push for vehicle electrification to the Clean Air Act. It passed the Electric and Hybrid Vehicle Research, Development, and Demonstration Act of 1976. Pub. L. No. 94-413, 90 Stat. 1260 (1976), 15 U.S.C. §§ 2501-2514. There, Congress made no secret of its support for electricity-powered vehicles and its concerns about gasoline-powered ones. The latter, Congress declared, led to over-reliance on foreign petroleum, which “jeopardizes national security, inhibits foreign policy, and undermines economic well-being.” *Id.* § 2501(a)(1). So Congress sought “the expeditious introduction of electric and hybrid vehicles into the Nation’s transportation fleet.” *Id.* § 2501(a)(4); *see id.* § 2501(b)(4) (stating policy of “promot[ing] the substitution of electric and hybrid vehicles for many gasoline- and diesel-powered vehicles”). More recently,

Congress enacted tax credits for certain electric vehicles. Energy Improvement and Extension Act of 2008, Pub. L. No. 110-343, Div. B, Tit. 1, § 205, 122 Stat. 3765, 3835; American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 1141, 123 Stat. 115, 326.

Congressional support for vehicle electrification continues to this day. In 2021, Congress established the National Electric Vehicle Formula Program. *See* Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, Div. J., Tit. VIII, Highway Infrastructure Program ¶ 2, 135 Stat. 429, 1421-23 (2021). This program allocated \$5 billion over fiscal-years 2022-2026 for state transportation departments to build electric-vehicle charging stations. *Id.* And last year Congress devoted billions more to electrify the national vehicle fleet in the Inflation Reduction Act, passed shortly after EPA finalized the disputed rule. There, Congress gave tax credits to buyers of electric vehicles and to domestic manufacturers of critical minerals for electric-vehicle batteries and battery components. Pub. L. No. 117-169, §§ 13401-13404, 13502, 136 Stat. 1818, 1954-1969, 1971-1981 (2022). It also gave many billions of dollars to other electrification efforts. 136 Stat. at 2044, 2063, 2086.

III. Regulating greenhouse-gas emissions from motor vehicles.

EPA’s 2009 endangerment finding addressed an aggregate group of “long-lived” and “well-mixed” greenhouse gases that, once emitted, disperse throughout

the global atmosphere, regardless of their points of origin.² 74 Fed. Reg. at 66516/3-17/1. In its greenhouse-gas rules, EPA thus focuses on reducing the total level of vehicle emissions, rather than how reductions are distributed across individual vehicles.

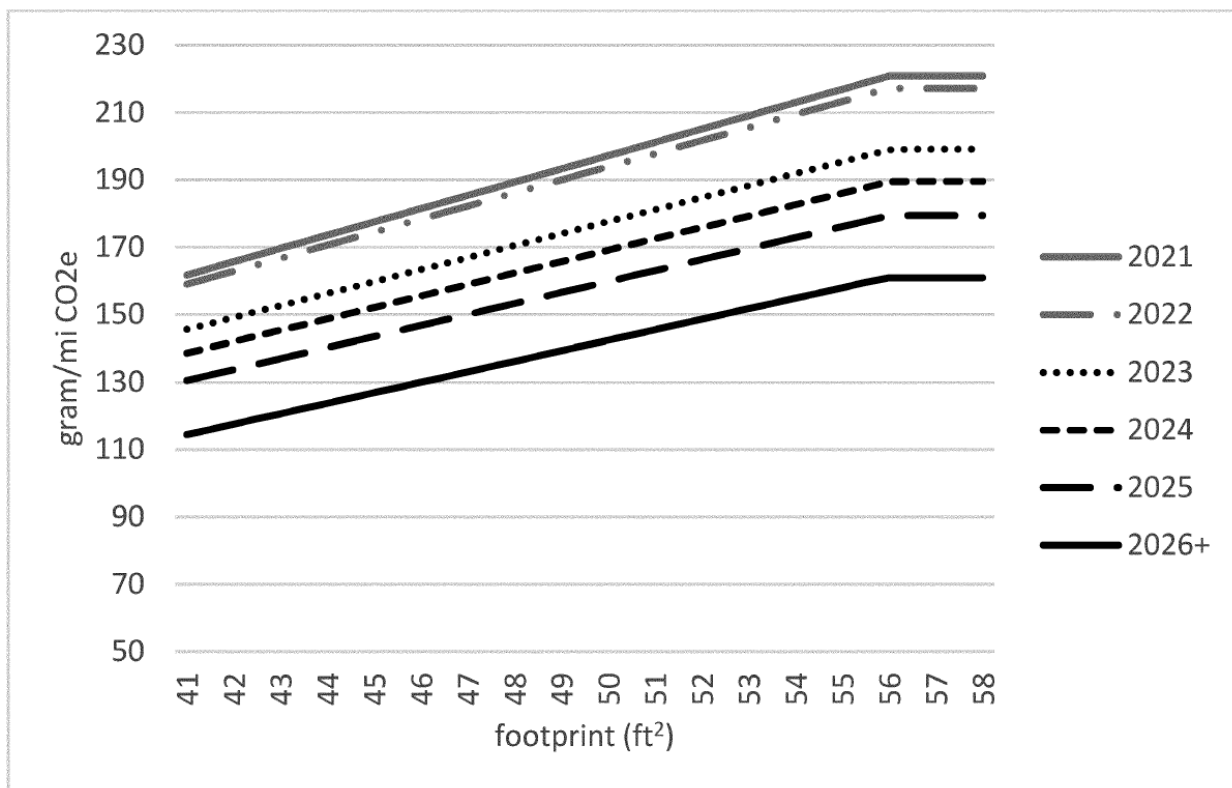
This focus is reflected in how EPA structures its regulatory program, an approach established in 2010 with the first set of greenhouse-gas standards: The agency limits overall fleet emissions while leaving automakers the freedom to decide how to comply. That approach relies on both fleet-average standards and vehicle-specific in-use standards.

A. Fleet-average standards.

EPA's regulations establish a method for each automaker to calculate its own fleet-average standards. Two things determine that standard: (1) target emission levels based on vehicle size, or its "footprint," 49 C.F.R. § 523.2, and (2) how many vehicles of each footprint are in the fleet. Here is how each automaker calculates its fleet-average standard.

Start by determining each vehicle's target emission level. Below are the footprint-based targets EPA set for model-year 2021-2026 cars:

² These gases are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.



86 Fed. Reg. at 74450;³ *see id.* at 74451 (truck targets). A model-year 2026 car with a footprint of 43 ft² thus has a target emission level of about 120 grams CO₂ per mile (g/mi), while a car with a footprint of 56 ft² has a target of about 160 g/mi.

Next, calculate a weighted average based on how many vehicles of each footprint are in a fleet. Suppose an automaker has a fleet of 5 cars: 2 compact cars each with a footprint of 43 ft², and 3 full-size cars each with a footprint of 56 ft². This automaker’s model-year 2026 fleet-average standard is (2 x 120 g/mi + 3 x 160 g/mi) ÷ 5 = 144 g/mi. 40 C.F.R. § 86.1818-12(c)(2)(ii), (3)(ii). A different

³ “CO₂e” in the chart refers to CO₂-equivalent emissions. Emission reductions include reduced emissions of non-CO₂ greenhouse gases from air-conditioning systems. 86 Fed. Reg. at 74446 n.34.

automaker with a different fleet (and thus a different set of footprints) would have a different fleet-average standard. *See* 75 Fed. Reg. at 25333/2, 25412/3.

To comply with its fleet-average standard, the automaker can make each vehicle hit its own emission target. But in practice, it is often easier and cheaper to reduce emissions from some vehicles more than in others. *See* 86 Fed. Reg. at 74481/2-3. EPA's averaging, banking, and trading program, which has existed in one form or another since the 1980s, allows automakers to reduce emissions where and when it is most efficient. *See* 75 Fed. Reg. at 25412/3; 40 C.F.R. § 86.1865-12(k); 48 Fed. Reg. 33456, 33456-57 (July 21, 1983); 50 Fed. Reg. 10606 (Mar. 15, 1985).

Averaging allows vehicles that emit less than their targets to offset those that emit more. 40 C.F.R. § 86.1865-12(k)(7). Imagine that our hypothetical automaker cuts the compacts' emissions to 90 g/mi (30 g/mi below target), but cuts the full-size cars' emissions to only 170 g/mi (10 g/mi above target). The automaker's fleet-average emission is $(2 \times 90 \text{ g/mi} + 3 \times 170 \text{ g/mi}) \div 5 = 138 \text{ g/mi}$. Thanks to its "cleaner" compacts, the automaker complies with its fleet-average standard (144 g/mi) even though its full-size cars exceed their targets. *See* 86 Fed. Reg. at 74495/2.

Notice that this fleet emits less than what the standard allows. *Banking* allows automakers to get credits for "unused" emissions and save those credits for

future compliance. On the flip side, automakers who exceed their standards can run deficits to be made up by future credits. 40 C.F.R. § 1865-12(k)(7). Banking, in short, averages emissions over time. 55 Fed. Reg. 30584, 30585/3 (July 26, 1990). It recognizes that automakers do not redesign every model every year to add emission-control technologies. *See* 86 Fed. Reg. at 74495/2. And it offers flexibility in compliance timing.

EPA also allows credit *trading*. Automakers can sell their extra credits to others with deficits. 55 Fed. Reg. at 30584/1; 40 C.F.R. § 1865-12(k)(7). Trading, which in effect averages emissions across fleets, creates incentives for those who can reduce emissions most cheaply to do so beyond what their standards require.

More broadly, averaging, banking, and trading allow automakers to tailor compliance strategies to their business strategies. They can have a wide range of emission levels within their fleet, with extra “clean” cars offsetting extra “dirty” ones. Or they can run deficits while fine-tuning new emission-control technologies to be installed in later model years. Or they can have lots of “clean” cars and sell their credits. And so on. The choice of how to comply—of what kind, how much, and the timing of technologies to use—lies with automakers.

B. In-use standards.

Alongside fleet-average standards, EPA also sets in-use standards for individual vehicles. These standards are set at the end of the model year as follows.

As a condition to sending vehicles into commerce, automakers must submit a greenhouse-gas report after the model year ends. *See* 40 C.F.R. §§ 86.1865-12(l)(2), 86.1848-10(c)(9), 600.010(d); 42 U.S.C. §§ 7522(a)(1), 7525(a). This report contains comprehensive testing data showing emission levels from specified demonstration vehicles. 40 C.F.R. § 600.010(d).

The vehicle-specific in-use standard is set at these end-of-model-year reported levels, plus a 10% variability margin. *Id.* § 86.1818-12(d); *see* 75 Fed. Reg. at 25476/2-3 (explaining reason for this margin). Automakers must then periodically submit real-world testing data (from consumer-owned vehicles) to verify that they meet their in-use standards. 40 C.F.R. §§ 86.1818-12(d), 86.1845-04. In this way, in-use standards allow EPA to enforce emission requirements at the vehicle level. They also allow EPA to check that automakers are achieving the fleet-average standards in practice.

IV. A history of EPA's greenhouse-gas rules.

Ever since it started regulating greenhouse-gas emissions in 2010, EPA has structured its regulatory program around fleet averages and allowed averaging,

banking, and trading. Every greenhouse-gas rule has also reflected the feasibility of a range of emission-control technologies—including, every time, electrification. *See* 42 U.S.C. § 7521(a)(2). That consistency spans six greenhouse-gas rules issued by three different presidential administrations over ten years:

Table 1

Rule	Fleet-average standard	Averaging, banking, and trading	Considering electrification
Light-duty (model-year 2011 and later), 75 Fed. Reg. 25324 (May 7, 2010)	25405/1, 25412/1-3	25412/3	25328/3, 25456 (tbl. III.D.6-3)
Heavy-duty (model-year 2014 and later), 76 Fed. Reg. 57106 (Sept. 15, 2011)	57119/1	57238/2-39/1	57204/3-05/2, 57220/1-21/2, 57224/3-25/1, 57246/1
Light-duty (model-year 2017 and later), 77 Fed. Reg. 62624 (Oct. 15, 2012)	62627/3-28/1	62628/1-2	62705/1-06/1, 62852/2-61
Heavy-duty (model-year 2021 and later), 81 Fed. Reg. 73478 (Oct. 25, 2016)	73730/2-3, 73733/2-34/1	73495/2-3, 73568/2-69/3	73751/1-3
Light-duty (model-year 2021 and later), 85 Fed. Reg. 24174 (Apr. 30, 2020)	24246/3-47/3	25206/3-07/1, 25275/1-76/2	24320/1, 24469/1-524/3
Light-duty (model-year 2023 and later), 86 Fed. Reg. 74434 (Dec. 30, 2021)	74446/3-51/1	74453/1-56/1	74493/1-94/3, 74484/2-87/3

EPA issued its earlier rules jointly with the National Highway Traffic Safety Administration, though the two agencies' standards have always varied in certain ways under their different statutory mandates. *E.g.*, 75 Fed. Reg. at 25324/1; 86 Fed. Reg. at 74456/3-57/1. NHTSA sets corporate average fuel-economy standards under the Energy Policy and Conservation Act. 49 U.S.C. § 32902(a); 49 C.F.R. § 1.95(a). Though the two agencies' "wholly independent" statutory obligations "may overlap," the Supreme Court has noted that EPA and NHTSA can "avoid inconsistency" when setting their own standards. *Massachusetts*, 549 U.S. at 532. To that end, the two agencies structured their different regulatory programs to harmonize where appropriate, and to ensure that automakers could comply with both sets of standards. 75 Fed. Reg. at 25328/2-39/1. For example, because NHTSA had been using footprint-based fleet averages, which the agencies agreed was appropriate, EPA did the same. *Id.* at 25328/2, 25333/1-2.

Compliance flexibilities, meanwhile, predate the regulation of greenhouse gases. As early as 1983, automakers could comply with criteria-pollutant standards using averaging. 48 Fed. Reg. at 33456-57; *see* 50 Fed. Reg. at 10606; *NRDC v. Thomas*, 805 F.2d 410, 425 (D.C. Cir. 1986). EPA introduced banking and trading in 1990. 55 Fed. Reg. at 30584/1.

Along the way, environmental groups challenged averaging in heavy-duty standards for criteria pollutants. *See NRDC v. Thomas*, 805 F.2d at 410. At issue

were statutory fines for heavy-duty vehicles. *Id.* at 425; *see* 42 U.S.C.

§ 7525(g)(1). Plaintiffs argued that averaging conflicted with congressional intent by allowing “dirty” trucks to be averaged into the fleet and thus escape a penalty. *NRDC v. Thomas*, 805 F.2d at 425. This Court disagreed, reasoning that “a manufacturer whose entire fleet of engines does not—even on average—meet an emissions standard will still pay [those penalties].” *Id.* “[I]n the absence of any clear evidence that Congress meant to prohibit averaging,” the Court rejected petitioners’ argument. *Id.*

Congress amended the Clean Air Act a few years later. Pub. L. No. 101-549, 104 Stat. 2399 (1990). Both the House and Senate considered—and rejected—proposals to either expand or prohibit EPA’s authority to allow emission averaging for motor vehicles. 136 Cong. Rec. 35,367 (1990), 1990 WL 1222469, at *1; 136 Cong. Rec. 36,713 (1990), 1990 WL 1222468, at *1. Congress, noting *NRDC v. Thomas*, instead opted to let the existing law “remain in effect.” 136 Cong. Rec. 36,713, 1990 WL 1222468, at *1. “The intention was to retain the status quo.” 136 Cong. Rec. 35,367, 1990 WL 1222469, at *1.

V. The 2021 rule.

A. Overview.

In 2021, after notice and comment, EPA revised its greenhouse-gas emission standards for model-years 2023-2026 light-duty vehicles, set in 2020 by the

previous administration. 86 Fed. Reg. at 74435/2-3. Like its predecessors, the 2021 rule uses fleet averages and allows averaging, banking, and trading. *Supra* Table 1. Also like its predecessors, the rule accounts for emission-control technologies like electrification. *Id.*

As relevant here, EPA revised footprint-based emission targets for cars and trucks. EPA adopted lower targets that led to fleet-average standards becoming more stringent for model-years 2023-2026.⁴ Instead of the 2020 rule's projected 1.5% year-over-year increases in stringency, the revised rate is 10%. 86 Fed. Reg. at 74438/1, 74439/1-40. EPA, however, did not revise 40 C.F.R. §§ 86.1818-12(c)(2)(ii), (3)(ii), or 86.1865-12(k)(7), regulations that, promulgated in 2010, establish the fleet-average approach and averaging, banking, and trading. *See* 86 Fed. Reg. at 74522/1-23/3, 74524/1-2.

B. Technology and modeling analysis.

To set the standards' stringency, EPA analyzed various options. *See* Reg. Impact Analysis at xviii-xxiv, JA0844-50. Much of that analysis entailed assessing emission-control technologies and then modeling potential standards to assess their impacts. *See id.* Ch. 4, JA0882-924. EPA used the same model as the one it had

⁴ EPA also tweaked other aspects of the 2020 rule, such as the shelf life of certain credits and multipliers for electrification technologies. 86 Fed. Reg. at 74441/1-42/1, 74453/3-56/1, 74458/3-63/2. Those changes are not in dispute. *See* Fuel Br. 16-19; State Br. 11-12.

used in the 2020 rule.⁵ 86 Fed. Reg. at 74474/1-3. The model does two main tasks.

First, it projects how automakers might respond to a given set of standards. 85 Fed. Reg. at 24271/3-72/2. The model starts with user-provided inputs, such as each automaker's baseline fleet and the availability, capability, and costs of various emission-control technologies. *See id.* at 24271/3; CAFE Model Documentation at 3, 5, App. A, JA0325, 0327, 0328-50; 86 Fed. Reg. at 74442/2, 74473/3-75/3, 74475 (tbl. 20). Using these inputs, the model then brings each automaker into compliance with potential standards by applying technologies based on their relative cost-effectiveness. 85 Fed. Reg. 24271/3-72/1; 86 Fed. Reg. at 74479/3-80/3. The model, in other words, simulates what rational, cost-conscious automakers might do in response to a set of standards.

The output of this simulation is a potential fleet that each automaker might use to comply with the standards. *See* Reg. Impact Analysis at 4-26 to 32, JA0907-13. The simulation includes what emission-control technologies the fleet may contain and their prevalence. *See id.* at 4-26 to 29, JA0907-10; 86 Fed. Reg. at 74484-85 (tbls. 31-33); 85 Fed. Reg. at 24271/3-72/2.

⁵ EPA updated some inputs used in the 2020 rule. 86 Fed. Reg. at 74474-75, 74477/1. These updates, by and large, reflect use of a new baseline model year and changed conditions since 2020; they are not at issue. *Id.*

That prevalence is known as a projected technology penetration rate. 86 Fed. Reg. at 74484-85 (tbls. 31-33). For example, EPA projected that under the final standards, between model-years 2023-2026, the national fleet's penetration rate for high-compression engines (in gasoline vehicles) could increase from 21 to 36%, and for plug-in hybrids and battery vehicles, from 7 to 17%. Reg. Impact Analysis at 4-28 to 29, JA0909-10. Penetration rates, however, have no legal effect, as automakers can choose other compliance strategies. 86 Fed. Reg. at 74484/2-3. The rates simply help EPA assess the standards' feasibility. *See, e.g., id.* at 74443/1, 74484/2-87/2.

The second thing that the model does is show the effects of automakers' projected compliance strategies. Those effects—which implicate a host of factors like emissions, health, air quality, compliance costs, fuel consumption, and safety—allow EPA to compare various stringency options. *Id.* at 74493/2; 85 Fed. Reg. at 24271/3-72/2; *see also* Reg. Impact Analysis, Chs. 5-8, JA0925-1014.

C. Basis for standards under Section 7521(a).

Model outputs in hand, EPA considered whether it was appropriate to tighten the model-year 2023-2026 standards set in the 2020 rule. 86 Fed. Reg. at 74492/2-500/2. EPA concluded that it was. *Id.* at 74499/2-500/2.

EPA focused on potential emission reductions and the two factors enumerated in Section 7521(a)(2), compliance costs and lead time for the requisite

technology. The model estimated average per-vehicle compliance costs at \$330 for model-year 2023 standards, increasing to \$1,000 for model-year 2026. 86 Fed. Reg. at 74483 (tbl. 30); *see id.* at 74488-89 (tbl. 34) (estimating reductions of greenhouse-gas emissions). In this analysis, EPA sought to reduce emissions in the most efficient way. *See id.* at 74493/1.

Context also mattered. EPA had been regulating greenhouse-gas emissions under Section 7521(a) for a decade. *Id.* During that time, automakers were able to plan for and meet increasingly strict standards. *Id.*; *see* Reg. Impact Analysis at 2-4, JA0851. As a result, advanced emission-control technologies have been “widely available and in use on vehicles.” 86 Fed. Reg. at 74485/1; *id.* at 74493/1. For gasoline vehicles, which are expected to comprise over 80% of complying fleets, a range of technologies were “already available to them at reasonable costs” and could be incorporated “within the timeframe of the final standards.” *Id.* at 74486/1.

The same was true for electrification technologies, including plug-in hybrids and battery vehicles. The projected change in penetration rate for these vehicles—from 7 to 17%—“accurately reflect[s] the current momentum and direction” of innovation in the auto industry. *Id.* Between model-years 2015-2020, their production as a share of total vehicle production more than tripled. *Id.* at 74485/3. A slew of automakers have announced plans to shift production to fully electric

vehicles. *See id.* at 74486/1-2. Still others plan major shifts to electrification. *Id.* Many automakers also sell vehicles in countries that plan similar shifts. *Id.* at 74487/1-2. Given all that, EPA concluded that the standards call for feasible technologies. *Id.* at 74493/1.

The standards are expected to reduce greenhouse-gas emissions by many millions of metric tons. *Id.* at 74488-89 (tbl. 34). These reductions, EPA concluded, would be not only “feasible” but also “warranted” as a step to reduce climate change’s impacts on public health and welfare. *Id.* at 74492/3-93/1.

D. Cost-benefit analysis.

Separate from Section 7521, Executive Order 12866 directs agencies to assess expected costs and benefits before proposing “significant” actions. E.O. 12866, § 6(a)(3)(B)-(C), 58 Fed. Reg. 51735 (Sept. 30, 1993); *see id.* § 3(f)(1) (defining “significant”). The Office of Management and Budget has issued guidance documents to help agencies develop cost-benefit analyses.

One of those documents, Circular A-4, states that agencies should “monetize quantitative estimates [of costs and benefits] whenever possible.” Circular A-4 at 16, JA0809; *see* Reg. Impact Analysis at 3-32 to 33, JA0868-69. Because regulatory costs and benefits often happen in the future, those money streams must be “converted” into present values using discount rates. Circular A-4 at 19-20, JA0812-13. Circular A-4 offers guidance on how to choose appropriate rates and

manage the analysis's scope. *See id.* at 9, 19-20, JA0802, 0812-13. In greenhouse-gas rules, EPA typically examines a range of potential impacts on things like health, vehicle sales, fuel consumption, and energy security. *See, e.g.*, 75 Fed. Reg. at 25516/1-20/1, 25524/2-34/2; 77 Fed. Reg. at 62923/1-27/3, 62930/1-41/3.

EPA estimated the rule's monetized costs through 2050. Their present value came out to about \$300 billion (using a 3% discount rate). 86 Fed. Reg. at 74509 (tbl. 43). This figure covers not only technology costs, but various indirect costs of the increased driving expected to result from the standards. *See id.* at 74508/2-09; Reg. Impact Analysis at 3-1, JA0862 (explaining the standards' "rebound" effect of increased driving).

EPA also estimated the rule's monetized benefits. *See* 86 Fed. Reg. at 74509-11 (tbls. 44-47). The biggest benefit by far is \$320 billion (at 3%) in fuel savings. *Id.* at 74510 (tbl. 44). Another benefit is the projected \$130 billion (at 3%) from reductions in greenhouse-gas-emission-caused harms. *Id.* at 74511 (tbl. 47) (also estimating benefits using 2.5 and 5% discount rates). The specific monetization of climate benefits, however, was "not material" to EPA's choice of standards. *See id.* at 74498/2.

Putting the costs and benefits together, EPA estimated net benefit at some \$190 billion through 2050. *Id.* at 74511 (tbl. 48). The existence of positive net

benefits, though not a mandatory factor under Section 7521(a), “reinforce[d]” EPA’s conclusion that its choice of standards is appropriate. *Id.* at 74500/1; *see id.* at 74498/2-3.

STANDARD OF REVIEW

Courts review an agency’s interpretation of a statute it administers for reasonableness. When “traditional tools of statutory interpretation” show that the agency’s interpretation is “the best one,” the court can uphold the interpretation without resorting to deference principles. *Guedes v. ATF*, 45 F.4th 306, 313 (D.C. Cir. 2022). But agency interpretations that are “reasonable” should also be upheld. *Wash. All. of Tech. Workers v. DHS*, 50 F.4th 164, 192 (D.C. Cir. 2022).

Under the Clean Air Act, like under the Administrative Procedure Act, the Court may reverse any action that is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 42 U.S.C. § 7607(d)(9)(A). This standard is narrow, and the Court cannot substitute its policy judgment for EPA’s. *Bluewater Network v. EPA*, 370 F.3d 1, 11 (D.C. Cir. 2004). If EPA considered the relevant factors and articulated a rational connection between the facts found and the choices made, its decisions must be upheld. *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). The Court also gives an “extreme degree of deference” to EPA’s “evaluation of scientific data within its technical expertise.” *Miss. Comm’n on Env’t Quality v. EPA*, 790 F.3d 138, 150

(D.C. Cir. 2015). Review is limited to the administrative record. 42 U.S.C. § 7607(d)(7)(A).

SUMMARY OF ARGUMENT

The Court should dismiss or deny the petitions for multiple independent reasons.

I. State Petitioners lack standing. Their assertions of injury-in-fact from increased use of electric vehicles are unsupported, speculative, and conclusory, and depend on third-party actions. Further, because use of electric vehicles undisputedly will increase with or without the 2021 rule, State Petitioners do not establish redressability.

In addition, no Petitioner's asserted injury is within the zone of interests Congress sought to protect. Section 7521(a) is designed to protect the public's interest in lower emissions of harmful pollutants and automakers' interests in technologically feasible standards. The zone of interests does not cover fuel producers' pecuniary interests in protecting market share, States' interest in preserving tax revenue and managing the electrical grid, or consumers' interests in obtaining specific vehicles.

II. This Court lacks jurisdiction in particular to consider Petitioners' challenges to EPA's statutory authority to set fleet-average standards that can be met using averaging, banking, and trading, and that account for electrification.

EPA established these basic regulatory elements of the standards' structure and form in a 2010 rule and did not reopen those elements here. Petitioners contest the wrong EPA action, and their claims regarding decisions made in 2010 or earlier are untimely under the Act's judicial-review provision, 42 U.S.C. § 7607(b)(1), and this Court's precedent.

Even if the Court had jurisdiction, the Act specifically requires parties to raise their objections during the rulemaking. Because Petitioners did not raise their statutory-authority objections then, the Court cannot consider them.

III. Petitioners would not prevail even if the Court were to reach the merits. The basic statutory question here is whether, in setting emission standards that are technologically feasible, EPA has authority to account for technologies that reduce emissions, including electrification. The answer is yes. Section 7521(a)'s plain text directs EPA to consider technological feasibility—without any limitation of what the emission-control technologies can be. That conclusion finds more support in statutory context and history. Indeed, Congress would have undermined its own technology-based statutory design had it drawn artificial boundaries within Section 7521(a) to blacklist certain technologies. EPA thus acted well within its authority when it considered electrification in the 2021 rule.

Nor does the major-questions doctrine undercut that conclusion. The factors that trigger the doctrine are absent here: There is nothing vague or ancillary about

Section 7521(a). And having relied on that provision in the same way in every vehicle greenhouse-gas rule, EPA did the opposite of invoking novel or staggering authority here. The standards, moreover, focus on source-based emission-control technologies, a regulatory approach that the Supreme Court endorsed in *West Virginia*. The major-questions doctrine thus has no relevance here—and even if it did, Congress authorized EPA’s action with sufficient clarity.

IV. Petitioners’ statutory arguments that EPA can neither use averaging nor include electric vehicles when doing so also fail. Section 7521(a) authorizes EPA to structure emission standards that apply to “classes” and hence fleetwide as well as to individual vehicles, and that include averaging, banking, and trading. The standards also accord with Title II’s structure and with provisions governing conformity, warranties, and enforcement.

Petitioners strain to read Section 7521(a)(1) as being capable of application only to vehicles that emit greenhouse gases. The statutory text and the nature of electric vehicles—which can emit greenhouse gases—both debunk that reading: Emission standards apply to entire “classes” of motor vehicles, most naturally understood to mean vehicles divided into groups based on their function—whether they are powered by gasoline, electricity, or something else.

V. The 2021 rule is reasonable. In evaluating potential standards, EPA accounted for all vehicles’ upstream emissions. But in assessing compliance with

those standards, which focus on vehicle emissions, EPA reasonably considered only vehicle emissions—whether the vehicle is electrified or not. Petitioners offer no reasoned basis for why that approach is unsound.

They also criticize various aspects of EPA’s cost-benefit analysis, including calculation of monetized climate benefits. Those benefits were not material to EPA’s choice of standards, so the Court need not consider this issue. But even if it were to do so, it should reject Petitioners’ arguments. EPA made reasonable judgments in its cost-benefit analysis, which are amply supported by record evidence. The Court should uphold the 2021 rule.

ARGUMENT

I. The petitions should be dismissed as a threshold matter.

A. State Petitioners lack standing.

Article III standing requires an injury-in-fact that is fairly traceable to the challenged action and is redressable by the requested judicial relief. *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560-61 (1992). Petitioners bear the burden of establishing standing. *California v. Texas*, 141 S. Ct. 2104, 2117 (2021). When the alleged injury depends on third-party decisions, standing “is ordinarily substantially more difficult to establish.” *Id.* “[C]onclusory allegations” are insufficient. *Finnbin, LLC v. Consumer Prod. Safety Comm’n*, 45 F.4th 127, 137 (D.C. Cir. 2022).

State Petitioners allege two injuries: (1) decreased oil-extraction tax revenue, and (2) strain on their electric grids. State Br. 13-14. Neither suffices.

First, unlike in *Wyoming v Oklahoma*, 502 U.S. 437 (1992), there is no evidence that any State Petitioner has actually lost tax revenues. Any future losses are speculative, and depend on third-party decisions. State Petitioners rely on EPA’s statement that reducing U.S. oil consumption reduces oil imports, which modestly lowers the world oil price with the “net effect of ... a decrease in revenue for U.S. exporters of crude oil and products.” Resp. to Comments at 19-17, JA1102; *see* State Br. 13. But less revenue for oil exporters does not necessarily translate into less oil extraction in any particular state. The same goes for decreased domestic gas consumption. As EPA noted in the same passage, the United States “is projected to be a net *exporter* of oil in the time frame of this analysis of this rule, 2023-2050.” Resp. to Comments at 19-17, JA1102 (emphasis added). Because of worldwide demand for oil, the net amount of oil extracted in the petitioning States—and their tax revenues—will not necessarily decrease as a result of this rule.

Moreover, automakers undisputedly will continue to produce more electric vehicles even without the 2021 rule. *See* 86 Fed. Reg. at 74486/1 (“a shift to zero-emission vehicle technologies is well underway”). Thus, even if State Petitioners were able to show decreased tax revenue, they would fail on redressability. *See*

Nat'l Wrestling Coaches Ass'n v. Dep't of Educ., 366 F.3d 930, 938 (D.C. Cir. 2004) (rejecting standing based on “speculati[on]” that policy changes “will alter the behavior of regulated third parties that are the direct cause” of the injury); *Swanson Grp. Mfg. LLC v. Jewell*, 790 F.3d 235, 243-44 (D.C. Cir. 2015) (harm reflecting other economic trends was not redressable).

Second, citing *Massachusetts v. EPA*, State Petitioners assert a “quasi-sovereign interest in managing their electrical grids.” State Br. 13. But Massachusetts asserted its own “particularized injury in its capacity as a landowner.” 549 U.S. at 522; *see Gov't of Manitoba v. Bernhardt*, 923 F.3d 173, 182 (D.C. Cir. 2019) (explaining that Massachusetts “alleged its own harm to establish an injury-in-fact”). None of the State Petitioners allege any particularized injury in a similar capacity—indeed, they do not even allege that they own or operate any portion of an electrical grid. And their professed generalized “interest in managing” electrical grids is too vague and speculative to demonstrate injury-in-fact. Again, State Petitioners fail to carry their burden.

B. Petitioners’ asserted injuries fall outside Section 7521(a)’s zone of interests.

Petitioners’ asserted injuries are all outside of Section 7521(a)’s zone of interests, and Petitioners thus lack a cause of action. Under the zone-of-interests test, the “salient consideration is whether the challenger’s interests are such that they in practice can be expected to police the interests that the statute protects.”

CSL Plasma Inc. v. CBP, 33 F.4th 584, 589 (D.C. Cir. 2022) (cleaned up). Section 7521(a) is designed to protect an environmental interest in lower motor-vehicle emissions. *See, e.g., Massachusetts*, 549 U.S. at 532; 42 U.S.C. § 7401(b) (declaring Clean Air Act’s purposes as protecting “the quality of the Nation’s air resources,” and supporting prevention and control of air pollution). Section 7521(a) also protects automakers’ interest in standards that give appropriate consideration to costs and lead time. 42 U.S.C. § 7521(a)(2) (directing EPA to allow time for the development of “requisite technology” and to give “appropriate consideration to the cost of compliance”).

Petitioners, however, include “entities that produce or sell liquid fuels and the raw materials used to produce them,” and individuals and a nonprofit alleging an injury in their ability “to find affordable gasoline-powered vehicles to purchase.” Fuel Br. 19-20. State Petitioners receive tax revenue from oil extraction and allege an interest in managing “their” electrical grids. State Br. 13. No Petitioner is a regulated entity, and their declared interests are not such that they can be expected to police the interests protected by Section 7521(a).

Start with the fuel entities’ pecuniary interest in their own market share. This Court has already decided that such an interest falls outside the relevant zone of interests, in another dispute involving similarly situated petitioners “seeking to boost sales” of a competing fuel. *Delta Constr. Co. v. EPA*, 783 F.3d 1291, 1299

(D.C. Cir. 2015) (rejecting argument by group, who promoted use of vegetable oil as fuel, that EPA’s standards “make[] its products economically infeasible” by “incentiviz[ing] other renewable fuels like electricity sold by its competitors”).⁶ Fuel petitioners are on even weaker footing here because their pecuniary interests conflict with the Act’s goals: The less stringent emission standards they prefer correlate with more emissions that endanger public health and welfare.

Likewise, State Petitioners’ pecuniary interest in increased tax revenues is outside Section 7521(a)’s zone of interests. At bottom, State Petitioners and the fuel entities have the same complaint: They should benefit financially more than they currently can from EPA’s emission standards. This effort to protect their market share or oil-extraction revenue is outside Section 7521(a)(1)’s zone of interests. So is State Petitioners’ asserted interest in “managing their electrical grids.” State Br. 13.

The consumer petitioners’ interests are even farther afield. Protecting consumer choice among different gasoline-powered vehicles is not within Section 7521(a)’s zone of interests. Petitioners cite *Competitive Enterprise Institute v. NHTSA*, but that case revolves around the Energy Policy and Conservation Act, a

⁶ See also *Twin Rivers Paper Co. LLC v. SEC*, 934 F.3d 607, 617 (D.C. Cir. 2019) (paper manufacturers fall outside zone of interests protected by securities laws); *Grocery Mfrs. Ass’n v. EPA*, 693 F.3d 169, 179 (D.C. Cir. 2012) (economic injury to food-groups members arising from increased corn prices did not allow it to challenge EPA waiver allowing ethanol blend).

statute concerned with “consumer choice” as well as fuel efficiency. 901 F.2d 107, 119 (D.C. Cir. 1990). Section 7521(a), by contrast, is not designed to protect consumer choice. *See Int’l Harvester*, 478 F.2d at 640 (noting that emission standards may limit choice of vehicle models).

Because none of Petitioners’ claimed injuries falls within Section 7521(a)’s zone of interests, the petitions should be dismissed.

II. At minimum, the Court should not reach Petitioners’ statutory arguments.

Petitioners challenge EPA’s Section 7521(a) authority to set emission standards that apply fleetwide instead of solely to individual vehicles; that use averaging, banking, and trading; and that account for electrification. Fuel Br. 38-61. The Court should not reach these claims for two additional reasons. First, Petitioners contest aspects of the regulatory program that were established years ago and that were not reopened here. The Clean Air Act does not give the Court jurisdiction over Petitioners’ untimely challenges to earlier agency actions. Second, even if EPA had reopened these issues, Petitioners failed to raise their objections during the comment period, as the Act requires to permit judicial review.

A. Petitioners’ challenges to the framework of EPA’s Section 7521(a) regulations are barred because the issues raised are not the subject of the rule under review.

Section 7607(b)(1) requires challenges to a final EPA action to be filed within 60 days after its publication in the Federal Register or, if “such petition is based solely on grounds arising after such sixtieth day,” then “within sixty days after such grounds arise.” 42 U.S.C. § 7607(b)(1). This time-bar is jurisdictional. *Med. Waste Inst. v. EPA*, 645 F.3d 420, 427 (D.C. Cir. 2011).

Although these petitions were filed within 60 days after the 2021 rule, Petitioners improperly seek to challenge certain agency determinations setting the framework of EPA’s greenhouse-gas rules—adoption of standards in the form of fleet averages; averaging, banking, and trading; and accounting for electrification—that were established years ago. Every greenhouse-gas rule—from the first, issued in 2010, to the 2021 rule in dispute—shares the same regulatory approach. *Supra* Table 1. In fact, Petitioners’ request for vacatur of only the *current* rule would restore the 2020 rule, which has the very same structure. The 60-day window to challenge EPA’s “longstanding practice” has “long since closed.” *Med. Waste*, 645 F.3d at 427 (declining to reach challenge to “pollutant-by-pollutant approach” used in earlier rule); *Growth Energy v. EPA*, 5 F.4th 1, 12-13 (D.C. Cir. 2021) (same as to “approach to ‘retroactive’ exemptions”).

The arguments that Petitioners now advance were available to them when EPA first established that structure in 2010. Electrification has been considered since that time; averaging, banking, and trading, even earlier. Many Petitioners did challenge the 2010 rule, and even contested certain aspects of EPA’s statutory authority, but no one made the arguments now put forward. *Coal. for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102, 126 (D.C. Cir. 2012), *aff’d in part and rev’d in part on other grounds, Util. Air Regul. Grp. v. EPA*, 573 U.S. 302 (2014). Petitioners could have brought their current challenges in 2010 but chose not to. Thus under Section 7607(b)(1) and binding precedent, the Court lacks jurisdiction over those challenges.

Petitioners do not assert that their claim is based “solely on grounds arising after” the 60-day statutory period to challenge the 2010 rule. *See* 42 U.S.C. § 7607(b)(1). They have thus forfeited any argument that the Court has jurisdiction to review the 2010 rule on after-arising grounds. *NetworkIP, LLC v. FCC*, 548 F.3d 116, 120 (D.C. Cir. 2008) (“arguments in favor of subject matter jurisdiction can be waived by inattention or deliberate choice”).⁷

⁷ Nor do Petitioners purport to challenge an EPA refusal to amend the structure established in 2010. *See Alon Refin. Krotz Springs, Inc. v. EPA*, 936 F.3d 628, 646-47 (D.C. Cir. 2019) (reviewing EPA action denying a petition to amend a rule).

Petitioners also have forfeited any argument that EPA reopened the structure of the standards here to allow judicial review. In any case, reopening depends on whether the agency has “undertaken a serious, substantive reconsideration” of the relevant determination. *Growth Energy*, 5 F.4th at 21. That never happened here. EPA made clear that it was *not* reopening the issues that Petitioners now pursue. 86 Fed. Reg. 43726, 43746/3 (Aug. 10, 2021) (EPA is “*not* proposing to change the fundamental structure of the standards, which are based on the footprint attribute with separate footprint curves for cars and trucks” (emphasis added)); *see id.* (EPA is not reopening its longstanding “existing averaging, banking and trading program elements” as a compliance flexibility). Nor did EPA propose to amend the regulations that establish the fleet-average approach and credit banking and trading flexibilities, all of which were promulgated in the 2010 rule. *See* 40 C.F.R. §§ 86.1818-12(c)(2)(ii), (3)(ii), 86.1865-12(k)(7); 86 Fed. Reg. at 74522/1-23/3, 74524/1-2. Although EPA tightened the 2020 standards and tweaked some of the regulatory framework’s compliance flexibilities, that is an *application* of EPA’s longstanding approach to fleet averaging and consideration of electrification, not a “serious, substantive reconsideration” of it. *Growth Energy*, 5 F.4th at 21; *see*

NRDC v. EPA, 571 F.3d 1245, 1265-66 (D.C. Cir. 2009) (amendments that change one aspect of a regulation do not automatically reopen aspects “already decided”).⁸

In short, Petitioners’ statutory arguments are brought too late and challenge the wrong action. They should be dismissed for lack of jurisdiction.

B. Petitioners failed to raise their objections during the rulemaking.

Even if the Court had jurisdiction to consider Petitioners’ statutory challenges, they should be denied because Petitioners failed to satisfy the Clean Air Act’s exhaustion requirement: “Only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment ... may be raised during judicial review.” 42 U.S.C. § 7607(d)(7)(B). That requirement “is to be strictly enforced.” *Growth Energy*, 5 F.4th at 24. And there is no “carve-out from exhaustion requirements” for questions of statutory interpretation. *Id.*

During the comment period, Petitioners raised no objection to EPA’s authority under Section 7521(a) to (1) promulgate emission standards in the form of fleet averages, (2) allow averaging, banking, and trading, or (3) consider electrification or electric vehicles when setting emission standards. *See, e.g., Ohio*

⁸ Nor was EPA’s approach “constructively” reopened. The “basic regulatory scheme remains unchanged,” and Petitioners could have reasonably anticipated the gradual tightening of the standards. *Nat’l Biodiesel Bd. v. EPA*, 843 F.3d 1010, 1017 (D.C. Cir. 2016).

et al. Comments, JA0389-401; Corn Ass’n Comments, JA0557-68.⁹ That is so despite that EPA’s notice of proposed rulemaking clearly put them on notice that EPA was continuing to use this approach. 86 Fed. Reg. at 43746-51 (fleet averages), 43753-54 (averaging, banking, trading), 43757-60 (electrification and electric vehicles).

Petitioners also failed to articulate their view that the level of projected electrification and indirect effects on the economy triggers the major-questions doctrine. If Petitioners believe that the application of the doctrine turns on fact-intensive analyses of the effects of a particular standard level, they should have given EPA an opportunity to respond to their factual allegations and develop a record on those issues. *See Oglesby v. U.S. Dep’t of Army*, 920 F.2d 57, 61 (D.C. Cir. 1990) (explaining that exhaustion requirements provide an agency with “an opportunity to exercise its discretion and expertise” on a matter and “to make a factual record to support its decision”).

Because Petitioners failed to satisfy mandatory exhaustion requirements, the Court should not reach the merits of Petitioners’ statutory arguments.

⁹ Rather than contend that EPA ought to ignore electric vehicles in setting standards, Petitioners merely commented on whether those vehicles can be double-counted for compliance purposes. *See Corn Ass’n Comments* at 3, JA0559.

III. The 2021 rule lawfully accounts for feasible emission-control technologies, including electrification.

Even if the Court were to reach the merits of Petitioners’ statutory arguments, it should reject them. Though appearing in different variations, the constant refrain is that EPA must ignore electrification when setting Section 7521(a) standards. *See, e.g.*, Fuel Br. 3-5, 16-18. The core statutory question before the Court, then, is whether, in setting emission standards that are technologically feasible, EPA has authority to account for emission-control technologies like electrification. It does. Congress made that clear in Section 7521(a)’s text and elsewhere.

A. Section 7521(a)’s plain text authorizes EPA to consider electrification.

EPA invoked Section 7521(a) to tighten emission standards for light-duty vehicles. 86 Fed. Reg. at 74435/1. That provision authorizes EPA to set standards that account for emission-control technologies like electrification.

Section 7521(a)’s text is plain. Subsection (a)(1) directs EPA to set and periodically revise emission standards for classes of motor vehicles. 42 U.S.C. § 7521(a)(1). Those standards apply to vehicles for their useful life whether the vehicles are “designed as complete systems or incorporate devices to prevent or control ... pollution.” *Id.* Next, subsection (a)(2) directs EPA, when setting

standards, to consider compliance cost and lead time for the “development and application of the requisite technology.” *Id.* § 7521(a)(2).

Together, these provisions authorize EPA to set standards as long as they are technologically feasible—even if meeting them could require developing new technologies or “complete system[]” redesigns to “prevent or control” pollution. And Congress, whether discussing pollution prevention and control in subsection (a)(1) or emission-control technologies in subsection (a)(2), never excluded any technology from consideration. Emission-control technologies, in turn, encompass the entire spectrum of electrification technologies. *See supra* at 8. Section 7521(a) thus authorizes EPA to consider electrification in setting standards. Nor did Congress need to identify every possible technology for EPA to consider because as Petitioners concede (Fuel Br. 59), one goal of Section 7521(a) is to bring about newer and better technologies. *See Int’l Harvester*, 478 F.2d at 628-29, 635; *NRDC v. EPA*, 655 F.2d at 328. Congress, in other words, crafted a provision that anticipates and encourages technological advances and future innovations.

The Supreme Court recognized Section 7521(a)’s forward-looking design in *Massachusetts*. In holding that greenhouse gases are air pollutants under the Clean Air Act, the Court explained that Congress understood that “without regulatory flexibility, changing circumstances and scientific developments would soon render

the Clean Air Act obsolete. The broad language of § [7521](a)(1) reflects an intentional effort to confer the flexibility necessary to forestall such obsolescence.” *Massachusetts*, 549 U.S. at 532. That Section 7521(a) authorizes EPA to consider electrification is further buttressed by basic administrative-law principles, which require EPA to consider important aspects of the problem it is addressing. *State Farm*, 463 U.S. at 43. Here, that problem is greenhouse-gas emissions. And it is undisputed that electrification can reduce or eliminate those emissions.

Other language in Section 7521 confirms EPA’s authority to consider electrification. Section 7521(a) applies to classes of new “motor vehicles.” 42 U.S.C. § 7521(a)(1). Motor vehicles are defined as “self-propelled vehicle[s] designed for transporting persons or property on a street or highway.” *Id.* § 7550(2). Their legal status does not turn on whether they are powered by internal combustion, electricity, or something else.

Contrast that with “nonroad vehicles,” a diverse category that includes the likes of snowmobiles and tractors. *See id.* § 7550(11). A “nonroad vehicle” is defined in part on having a “nonroad engine,” which in turn means an “internal combustion engine.” *Id.* § 7550(10) (listing other requirements for nonroad engines). This treatment of nonroad vehicles shows that when Congress wants to draw distinctions based on internal-combustion engines, it will use those words.

E.g., Bluewater Network, 370 F.3d at 14. Yet it did not do so when directing EPA to consider emission-control technologies.

Petitioners’ contrary argument flouts the statutory text. The crux of that argument is that in setting standards and considering their technological feasibility, EPA must blacklist certain technologies like battery vehicles. *See, e.g., Fuel Br.* 16, 23 (casting electrification as a disfavored technology). Petitioners, in effect, would add a technology carveout to Section 7521(a) that appears nowhere in the text and that would be fundamentally at odds with the statute’s forward-looking design. The Court should not rewrite the statute.

B. Statutory context and history confirm that EPA may consider electrification.

Section 7521(a)’s context and history support the plain-text reading. Title II aims to reduce emissions from motor vehicles to protect public health and welfare. *See* 42 U.S.C. § 7521(a)(1). The indicia of statutory intent thus confirm that EPA has authority to consider electrification technologies when setting standards.

Section 7521(a) is the keystone of Title II’s motor-vehicle program. Far from maintaining the status quo in the “[v]ehicle [m]arket,” *Fuel Br.* 24, Section 7521(a) was conceived as a tool that can push automakers to adopt all sorts of innovative technologies to cut emissions. *Int’l Harvester*, 478 F.2d at 635; *see* S. Rep. No. 91-1196, at 24 (1970) (noting that this provision would allow EPA to “press for ... improved technology rather than be limited by that which exists”). In

setting emission standards, then, EPA “should adjust to changing technology.” S. Rep. No. 89-192, at 4 (1965). Section 7521(a), by design, seeks innovation and change.

In deed as well as in words Congress has made clear that under Section 7521(a), *all* emission-control technologies are fair game. In 1970, it amended Section 7521 to add aggressive criteria-pollutant standards. 84 Stat. at 1690 (reducing emissions by 90% over just a few model years). In doing so it considered the availability of emission-control technologies—including unconventional energy sources like steam and natural-gas piston. S. Rep. No. 91-1196, at 27 (1970); *see Int’l Harvester*, 478 F.2d at 635. Congress thus recognized that reducing emissions from internal-combustion engines may not be enough, and that better and more effective technologies were needed.

It would defy congressional intent to categorically exclude any technology—especially electrification, one of the best ways to reduce emissions—from the standard-setting analysis. Indeed, electrification has long enjoyed support from Congress, which for years has sought alternatives to internal combustion. *See, e.g.*, 15 U.S.C. § 2501; 42 U.S.C. § 7404(a)(2)(B); 90 Stat. at 1260; *supra* at 8-10; S. Rep. No. 90-403, at 59 (1967) (“Federal research into batteries, fuel cells, electrical vehicular systems, and other alternative propulsion systems is producing significant results”).

EPA, for its part, has done precisely what Congress wanted under Section 7521(a). It has set and tightened emission standards that, over time, have slashed emissions. 77 Fed. Reg. at 62671/3-72/1. By 2012, new light-duty vehicles emitted 98 to 99% less criteria pollution than in the 1960s. *Id.* Ambient levels of automobile-related pollutants have plummeted even as economic growth and vehicle miles traveled have nearly tripled. *Id.* at 62672/1. Since EPA started regulating greenhouse gases, those emissions have fallen by about 13% while vehicle horsepower increased by about 15%. *See* 2021 Auto Trends Report at 11, 32, JA0792, 0793. These achievements are possible largely because EPA’s emission standards have, as Congress intended, stimulated development and adoption of a broad range of advanced emission-control technologies, such as on-board computers and fuel-injection systems. 77 Fed. Reg. at 62672/1-2. Today, these technologies form the “building blocks of ... automotive designs.” *Id.* at 62672/2.

Against this backdrop, EPA tightened its standards in the 2021 rule. Like its predecessors, the rule accounts for feasible emission-control technologies. *Supra* Table 1. That includes electrification, a technology that is already on the market and embraced by automakers, as shown by their \$330 billion investment. *See* 86 Fed. Reg. at 74438/3 nn.12-14 (noting third-party projections of electric-vehicle penetration exceeding EPA’s estimates); Auto Alliance Comments at 3, 7-8,

JA0571, 0575-76 (discussing investment and sales projections for plug-in hybrids and battery vehicles of about 23% of light-duty sales in 2026). In fact, given Section 7521’s focus on technologies that “*prevent* or control” emissions, electrification’s effectiveness in emission prevention, and congressional policy, EPA could hardly have ignored this technology and still claim to have fairly grappled with an “important aspect of the problem” before it. *State Farm*, 463 U.S. at 43.¹⁰

Then, shortly after EPA finalized the 2021 rule, Congress dedicated billions of dollars to further electrify the national fleet. Inflation Reduction Act, 136 Stat. at 1954-1964, 1971-81, 2044, 2086-2087; *cf.* Fuel Br. 28-32 (focusing on older failed bills but ignoring more recent legislation). In this way, Congress made crystal clear that it wants more electric vehicles on the road, and that it sees electrification as a critical technology in reducing greenhouse-gas emissions.¹¹

¹⁰ EPA’s Clean Air Act authority to regulate renewable fuels does not exclude electrification from Section 7521(a): The Act specifies that its renewable-fuels provisions do not limit EPA’s other authority to regulate greenhouse gases. 42 U.S.C. § 7545(o)(12); *cf.* Fuel Br. 33.

¹¹ The Infrastructure Investment and Jobs Act, which predates the 2021 rule by a few months and which allocates billions of dollars to fund charging infrastructure, likewise reinforces Congress’s views about electrification. 135 Stat. at 1421-23.

C. The major-questions doctrine offers no reason to depart from statutory text.

The Supreme Court has cautioned that the major-questions doctrine applies only in “certain extraordinary cases.” *West Virginia*, 142 S. Ct. at 2609. That doctrine, moreover, is not a license for this Court to, as Petitioners urge, find a nonexistent exception to Section 7521(a)’s plain text.

Cases applying the major-questions doctrine are rare. *See id.* at 2608 (citing only a handful). In those cases, given the “history and the breadth” of the newly asserted authority and where that authority has such profound economic and political significance, there is “reason to hesitate” before concluding that Congress meant to confer that authority. *Id.* Thus in *West Virginia* the Supreme Court invoked the doctrine when it concluded that EPA found, in the “vague language” of a “rarely used,” “ancillary” statutory provision, an “unheralded power” representing a “transformative expansion” of its authority. *Id.* at 2610. In those circumstances, the Court demanded “clear congressional authorization.” *Id.* at 2609.

Though clear authorization exists here, the major-questions doctrine does not even apply. The hallmarks of an extraordinary case are absent: EPA acted within the heartland of its Section 7521(a) authority in setting standards that account for all feasible technologies. That is what EPA has done in every vehicle greenhouse-gas rule. And by focusing on making the regulated source cleaner,

EPA followed the approach approved in *West Virginia*. In every way that matters, this case bears no resemblance to those extraordinary ones that trigger the major-questions doctrine.

1. EPA broke no new legal ground by tightening earlier standards.

The major-questions doctrine singles out for special treatment agency actions that claim “newfound,” “unheralded,” “rarely ... used” powers to transform society. *West Virginia*, 142 S. Ct. at 2610. It does not apply here because all that EPA did was to tighten existing emission standards under its longstanding and oft-invoked authority.

That authority is Section 7521(a), which EPA has used time and again to set and tighten emission standards, including greenhouse-gas standards. All EPA’s greenhouse-gas rules have accounted for electrification and other technologies. *Supra* Table 1. That includes the 2020 rule that would be resurrected were the Court to grant Petitioners’ request for vacatur. The 2021 rule is no exception. It is just “one more entry in an unbroken list” of greenhouse-gas rules. *West Virginia*, 142 S. Ct. at 2610; *see Biden v. Missouri*, 142 S. Ct. 647, 652 (2022) (per curiam) (noting agency’s “longstanding practice” of imposing the kind of condition at dispute and not applying major-questions doctrine despite challengers’ request). Intervention by automakers, the regulated entities, to support EPA confirms that the 2021 rule is a “straightforward and predictable” example of regulations

authorized under Section 7521(a). *Biden v. Missouri*, 142 S. Ct. at 653 (noting that healthcare workers “overwhelmingly support” vaccine mandate for healthcare workers in federally funded facilities). There is, in short, nothing staggering or novel about EPA’s use of its authority here. *See* Fuel Br. 28-36; *West Virginia*, 142 S. Ct. at 2610 (“established practice may shed light on the extent of power conveyed by general statutory language”).

In urging application of the major-questions doctrine, Petitioners contend that the 2021 rule is too stringent. *See* Fuel Br. 51 (arguing that the rule is “so stringent” that automakers would need to use certain electrification technologies); State Br. 2 (similar). But stringency is a textbook example of an issue to be reviewed under the arbitrary-and-capricious standard. *See, e.g., Nat’l Petrochemical & Refiners Ass’n v. EPA*, 287 F.3d 1130, 1135 (D.C. Cir. 2002) (per curiam) (noting that deference under arbitrary-and-capricious review is “particularly great where EPA’s decision is based on complex scientific or technical analysis”). And disagreement with an agency’s exercise of its authority should not masquerade as reason that the agency lacks such authority.

For all their protests, Petitioners implicitly concede that EPA has authority to adopt standards premised on electrification. They fault the standards for accounting for “electric vehicles.” *See, e.g.,* Fuel Br. 18. But consider what they mean by that term. “Electric vehicles,” they say, are “electric vehicles, plug-in

hybrid electric vehicles, and fuel cell vehicles” as defined in 40 C.F.R. § 86.1803-01. Fuel Br. 13. That provision defines “electric vehicles” as motor vehicles powered “solely” by an electric motor. *See* 40 C.F.R. § 86.1803-01. And plug-in hybrid electric vehicles are hybrids that can plug into external power sources for recharging. *Id.*

Omitted from Petitioners’ universe of “electric vehicles” are mild and strong hybrid electric vehicles.¹² *See id.* (defining “mild” and “strong” hybrids). But hybrid electric vehicles, whether plug-ins or not, are electrified and use batteries. *See id.* (defining “hybrid electric vehicle” as having an internal-combustion engine and a rechargeable energy-storage system “such as a battery”).

So understood, Petitioners’ objection is not *whether* EPA can account for electrification when setting standards; it is *what kind* of electrification can count. In Petitioners’ view, mild and strong hybrids are in, while plug-in hybrids and battery vehicles are out. But nothing in the Clean Air Act supports that distinction. To the contrary, there is no basis to think that Congress intended for EPA to consider a technology when it reduces *some* tailpipe emissions but not when it

¹² *See also* Fuel Br. 15, 24-25 (focusing on the projected 17% penetration rate for “electric vehicles” in model-year 2016 fleet); State Br. 18, 20 (same); Reg. Impact Analysis at 4-28 to 29, JA0909-10 (showing that the 17% rate applies to plug-in hybrids and battery vehicles, and separately projecting penetration rates for mild and strong hybrids).

reduces *all* such emissions.¹³ More to the point, the degree that electrification might reduce emissions is a technical determination that calls for review under the arbitrary-and-capricious standard. It is not a statutory-interpretation issue, let alone one that triggers the major-questions doctrine.

Under that doctrine, the question centers on novel assertions of agency authority, not the *degree* to which an agency used its existing authority. Thus in *West Virginia*, the Supreme Court balked at what it described as “newfound power” discovered “in a long-extant statute”—authority that it thought would restructure the American power market. 142 S. Ct. at 2610. Similar concerns dominated cases that *West Virginia* relied on. *Id.* at 2608; *see FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 159 (2000) (authority to regulate tobacco after authority disavowed for years); *Gonzalez v. Oregon*, 546 U.S. 243, 267 (2006) (“broad and unusual authority” to define medical standards); *Util. Air Regul. Grp.*, 573 U.S. at 309-10, 323-28 (authority to regulate many previously unregulated smaller sources under a program intended for large industrial sources); *Ala. Ass’n of Realtors v. Dep’t of Health & Human Servs.*, 141 S. Ct. 2485, 2487 (2021) (“rarely ... invoked” authority to impose eviction moratorium); *Nat’l Fed’n*

¹³ Petitioners’ position would allow a rule that projects, say, 100% strong hybrids and no plug-in hybrids or battery vehicles. For the fuel entities, who worry about decreased demands for their fuels, *see* Fuel Br. 26-27, it is unclear how this scenario differs from the 2021 rule, which projects 17% plug-in hybrids and battery vehicles.

of Indep. Bus. v. OSHA, 142 S. Ct. 661, 662, 666 (2022) (per curiam) (authority to broadly mandate vaccines for first time).

These concerns illuminate the limits of the major-questions doctrine. The doctrine does not care about an agency’s continued progress down the same path where it has long trod. It cares about an agency blazing a trail into an unexpected new realm. *West Virginia*, 142 S. Ct. at 2610. Because the 2021 rule falls into the former category, the major-questions doctrine does not apply.

2. The rule hews to the regulatory approach blessed in *West Virginia*.

Petitioners play up supposed similarities between the 2021 rule and the Clean Power Plan challenged in *West Virginia*—similarities that are, at best, superficial. *E.g.*, Fuel Br. 3-4, 16-17. In reality, the rule does precisely what the Supreme Court criticized the Clean Power Plan for not doing: Focus on ensuring that regulated sources “operate more cleanly.” 142 S. Ct. at 2610-12. Far from “expan[ding]” its authority in “transformative” ways, EPA continues to regulate the same source—motor vehicles—that it has always regulated, using the same regulatory framework that it has always used. *Id.* at 2610.

The Supreme Court viewed the Clean Power Plan as a novel attempt to restructure the entire power system. *Id.* at 2610-12. EPA did not take a “technology-based approach” and limit itself to trying to make fossil-fuel-fired plants (the regulated sources) operate more cleanly. *Id.* at 2610-11. It instead

designed the plan to shift power generation to wind- and solar-powered sources, which it had no authority to regulate under the relevant provision. *See id.* at 2601, 2603-04, 2610-12.

This approach, the Supreme Court said, “fundamental[ly] revis[ed]” the statute, “changing it from one sort of scheme of regulation into an entirely different kind.” *Id.* at 2612 (cleaned up); *see Nat’l Fed’n of Indep. Bus.*, 142 S. Ct. at 666 (faulting agency for regulating “everyday” risk rather than focusing on “occupational” risk); *Ala. Ass’n*, 141 S. Ct. at 2488 (distinguishing regulations that “direct[ly] target[]” disease transmission from “far more indirect[]” regulation that bans evictions). The Court also faulted EPA for locating its “newfound power” in the “vague language of an ancillary provision” of the Clean Air Act. *West Virginia*, 142 S. Ct. at 2610 (cleaned up).

Had EPA followed the Clean Power Plan playbook here, it would have tackled the entire transportation system. It would have sought to phase out sources it regulates (motor vehicles) in favor of transportation it does not (bicycles, for example). And it would have done so by setting emission standards that regulated vehicles cannot meet.

That, of course, is not what happened. The 2021 rule regulates only the sources that Section 7521(a) authorizes EPA to regulate, motor vehicles. And rather than trying to reduce overall emissions from the nation’s transportation

system, the rule focuses on making “the regulated source ... operate more cleanly” by using more and better emission-control technologies. *West Virginia*, 142 S. Ct. at 2610-11; *see* 86 Fed. Reg. at 74439/1-41 & tbl. 2 (explaining standards’ effect on fleet). Nor is there dispute about feasibility. Finally, because EPA regulates all motor vehicles, electrified or not, an automaker’s use of electrification is not a phasing out of regulated sources in favor of unregulated ones. *See* 42 U.S.C. § 7550(2); *supra* at 42; *infra* at 75-78.

By confining the rule to motor vehicles, EPA did not engineer a “wholesale shift in energy policy.” Fuel Br. 23. It instead sought a feasible way to continue to reduce greenhouse-gas emissions from light-duty motor vehicles, a task that indisputably falls within EPA’s core expertise. *See id.* at 30-31. Automakers’ support underscores EPA’s success in that task.

Petitioners contend that the major-questions doctrine applies because EPA claimed the power to “phase out combustion-engine vehicles in favor of electric ones.” *Id.* at 16; *see* State Br. 2, 17. The phase-out happens, they say, because the rule effectively “mandate[s]” greater electrification. Fuel Br. 24. This argument misunderstands both the 2021 rule and *West Virginia*.

First, the rule does not mandate any particular emission-control technology. *See infra* at 79-80. Rather, EPA started with a range of standards, then evaluated the feasibility of each (which entailed projecting the penetration rate of various

technologies). *See supra* at 20-21. It is true that by tightening standards, EPA in effect required the national light-duty fleet to use more emission-control technologies. But EPA did not mandate which technology, let alone how much of it, to use. That decision is up to automakers. And it is hardly novel to tighten emission standards based on feasible technologies and for automakers to use those technologies. After all, every internal-combustion-engine vehicle has a catalytic converter. That does not make EPA's standards unlawful; it simply shows that the catalytic converter is an effective technology.

Second, greater technology penetration is no reason to apply the major-questions doctrine. Again, Section 7521(a) itself authorizes EPA to push for innovative technologies. *See Int'l Harvester*, 478 F.2d at 628-29, 635; *NRDC v. EPA*, 655 F.2d at 328. Besides, it is normal for regulations to cause "incidental" changes and even dislocations in a regulated industry. *West Virginia*, 142 S. Ct. at 2613 n.4. Those changes, the Supreme Court said, differ in kind from the Clean Power Plan, which "simply announc[ed] what the market share of coal, natural gas, wind, and solar must be, and then requir[ed] plants to reduce operations or subsidize their competitors to get there." *Id.* Thus in *West Virginia* the Supreme Court saw nothing wrong with requiring fossil-fuel-fired sources to adopt source-based emission-control technologies. *See id.* at 2611. Those kinds of controls, the Court said, were what EPA should have focused on, rather than dictating a "shift

throughout the power grid from one type of energy source to another.” *Id.* at 2611-12; *see id.* at 2611 (noting, with approval, EPA’s history of “select[ing]” systems of emission reduction like “efficiency improvements, fuel-switching, and add-on controls” (internal quotation marks omitted)).

In the end, Petitioners overstate *West Virginia*. The 2021 rule sets the kind of conventional emission standards—standards that can be met by applying emission-control technologies to regulated sources—that *West Virginia* blessed. And nothing there suggests that when EPA sets standards for regulated sources, the major-questions doctrine could bar consideration of specific technologies. This Court should reject Petitioners’ misreading.

3. Petitioners’ other arguments for applying the major-questions doctrine are meritless.

Petitioners fare no better on their remaining major-questions arguments.

Though they emphasize the rule’s significant impacts, without more, those asserted impacts do not call for clearer-than-ordinary congressional authorization. *E.g.*, Fuel Br. 24-27, 33; State Br. 14-15. Normally, even in challenges to federal programs implicating billions of dollars, courts apply ordinary principles of statutory interpretation. *See, e.g., Becerra v. Empire Health Found.*, 142 S. Ct. 2354 (2022); *Am. Hosp. Ass’n v. Becerra*, 142 S. Ct. 1896 (2022); *EME Homer City Generation, L.P.*, 572 U.S. 489 (2014); *Nat’l Cable & Telecomms. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967 (2005); *New York v. FERC*, 535 U.S. 1

(2002). Thus in *Biden v. Missouri*, the Supreme Court did not apply the major-questions doctrine when reviewing a federal vaccine mandate for all healthcare facilities receiving federal funding. 142 S. Ct. at 647. That was so even though lower courts had concluded that the vaccine mandate had “vast economic and political significance.” *Missouri v. Biden*, 571 F. Supp. 3d 1079, 1087 (E.D. Mo. 2021); *Louisiana v. Becerra*, 571 F. Supp. 3d 516, 536 (W.D. La. 2021); *both overruled*, 142 S. Ct. 647.

Petitioners’ argument thus proves too much. Many (perhaps even most) regulations have indirect effects that ripple across the economy and society at large. All the more so here, given that Congress contemplated that Section 7521 could have broad effects. *See supra* at 7, 40-42. Were those effects enough, the major-questions doctrine would apply to *every* Section 7521 rule, whether it involves electrification or not. Broad effects alone, however, do not trigger the doctrine, which is cabined to a handful of “extraordinary” cases. *West Virginia*, 142 S. Ct. at 2608.

The impact argument also unravels on the facts. Petitioners bemoan the rule’s supposedly enormous effect on the electric grid, national security, and jobs. Fuel Br. 26-27, 29-30; State Br. 3, 15-24. But the record contains no evidence of that kind of impact. To the contrary, EPA projected that “over 80 percent of new vehicles in a fleet complying with the standards in [model-year] 2026 will remain

powered by gasoline.” Resp. to Comments at 12-79, JA1076. So will an even larger percentage of older vehicles. *Id.* This heavily gasoline-powered fleet is expected to increase total U.S. electricity consumption by only 3% over nearly 30 years. 86 Fed. Reg. at 74503 (tbl. 38). And studies—including from the Department of Energy—show that “sufficient excess capacity exists for the levels of fleet penetration anticipated in this final rule.” Resp. to Comments at 12-83, JA1080. Further, electric-vehicle charging often occurs during off-peak hours, which can reduce any stress on the electric grid. *Id.* And where vehicles can act as electricity storage with vehicle-to-grid technology, that itself can improve grid reliability. *Id.* This Court should not credit Petitioners’ extra-record assertions, especially in the face of contrary record evidence and Petitioners’ failure to raise these points in their comments and develop the record. *See* 42 U.S.C. § 7607(d)(7)(A); *supra* at 38-39.

The same goes for Petitioners’ assertions that the rule supposedly jeopardizes national security. State Br. 22-24. In fact, the rule is projected to improve energy independence and security by reducing U.S. oil imports, which would in turn reduce the economy’s exposure to spikes in world oil prices. Resp. to Comments at 19-16 to 18, JA1101-03; Reg. Impact Analysis at 3-17, JA0864. Beyond energy security, EPA also addressed the “security implications of an emerging electric vehicle global supply chain.” Resp. to Comments at 19-18,

JA1103. After reviewing extensive plans and action by the White House and automakers to secure supply chains, including developing domestic supplies, EPA concluded that both government and industry were appropriately addressing this issue. *Id.* at 19-18 to 21, JA1103-06 (discussing government plans and automakers' deals to secure supplies). Similarly, the record does not support Petitioners' claim about impact on jobs. For jobs in the auto-manufacturing and -dealer sectors (that is, the regulated sectors), EPA estimated a roughly 2% *increase* in employment. *Id.* at 22-11, JA1109. EPA did not examine job shifts in non-regulated sectors, such as petroleum refineries and sectors associated with electric-vehicle production, in part because "wider economic impacts depend on the state of the macroeconomy, which are difficult to predict." *Id.*¹⁴

Petitioners also spotlight EPA's \$300 billion cost estimate. Fuel Br. 16, 23. For more context, that estimate is the present value of the rule's total costs (including indirect costs) over almost 30 years. 86 Fed. Reg. at 74509 (tbl. 43) (setting forth costs through 2050). In addition, compliance costs are comparable to those of earlier rules. For automakers, the cost to meet model-year 2026 standards

¹⁴ Petitioners' allegations about the electric grid, jobs, and national security are made solely to invoke the major-questions doctrine. Petitioners forfeit any argument that the rule is arbitrary on account of those impacts. *See* Fuel Br. 4-5, 26-27, 29-30; State Br. 3-4, 15-24; *e.g.*, *Corson & Gruman Co. v. NLRB*, 899 F.2d 47, 50 n.4 (D.C. Cir. 1990) (*per curiam*). At any rate, EPA reasonably considered and addressed these concerns.

(the farthest-out standards set here) is estimated at \$1000 per vehicle. *Id.* at 74483 (tbl. 30). EPA’s earlier greenhouse-gas rules for light-duty vehicles have imposed compliance costs of over \$1800. *See* 77 Fed. Reg. at 62865 (\$1836 for model-year 2025); *see also* 75 Fed. Reg. at 25463 (\$948 for model-year 2016); 86 Fed. Reg. at 74499/3.¹⁵ And the costs of the 2021 rule are well below the price tag that Congress accepted under Section 7521. *See Motor & Equip. Mfrs. Ass’n, Inc. v. EPA*, 627 F.2d 1095, 1118 (D.C. Cir. 1979) (reviewing legislative history and concluding that Section 7521’s “cost of compliance” requirement was meant to avoid “undue economic disruptions” for automakers and “doubling or tripling” motor-vehicle prices).

As for various statements by the President and EPA’s Administrator that Petitioners cite, they speak to goals—electrifying the national fleet—that align with Congress’s own policies. *See* Fuel Br. 10, 35-36 (citing E.O. 14037, 86 Fed. Reg. 43583 (Aug. 10, 2021)); Inflation Reduction Act, 136 Stat. at 1818; Infrastructure Investment and Jobs Act, 135 Stat. at 4269. Those goals, moreover, are not the basis for this rulemaking. Under review is the 2021 rule, which is

¹⁵ The stringency here is also unexceptional: The 2021 rule is expected to reduce fleet-average emissions by about 28%, which pales beside the 90% reductions (or more) that EPA has demanded elsewhere. *Compare* 86 Fed. Reg. at 74441 (tbl. 2) *with* 65 Fed. Reg. 6698, 6737/2 (Feb. 10, 2000) (nitrogen-oxide standards) (requiring certain trucks to reduce emissions from 1.53 g/mi to 0.07 g/mi); 66 Fed. Reg. 5002, 5002/2 (Jan. 18, 2001) (particulate-matter and nitrogen-oxide standards) (requiring 90 to 95% reduction).

supported by its own record. In any event, nothing in the President’s or Administrator’s statements alters the fact that Section 7521(a) authorizes EPA to tighten emission standards based on feasible technologies.

The Court should reject Petitioners’ attempt to turn this run-of-the-mill dispute about stricter emission standards into an extraordinary major-questions case.

4. Congressional authorization is clear enough even under the major-questions doctrine.

Even if the major-questions doctrine were applied, the Court should still uphold the 2021 rule. For the reasons above, Section 7521(a)’s text provides the “clear congressional authorization” that the doctrine demands. *West Virginia*, 142 S. Ct. at 2609. That is, Congress instructed EPA to set emission standards based on application of feasible emission-control technologies, including electrification. *See supra* at 40-46.

Having done so, Congress had no need to spell out every possible technology. Nor could it. Petitioners would turn a clear-authorization requirement into one for Congress to list every single potential *application* of an authority it had expressly granted. That asks for the impossible when Congress designed Section 7521(a) to cover technologies not yet invented.

Ultimately, Congress answered the most significant question here by explicitly authorizing EPA to set emission standards for motor vehicles even if

they call for novel technology. That authority would necessarily affect everyone in the product chain—automakers, fuel producers, consumers, employees, and others in domestic and global economies—even if electrification were not in play. This outcome is precisely what Congress intended. The Court should decline to convert the major-questions doctrine from a tool to interpret congressional intent into a tool to thwart it.

IV. The 2021 rule lawfully averages emissions across all vehicles in a fleet, including electric vehicles.

The Court should reject Petitioners’ statutory arguments about averaging if it reaches them. Section 7521(a) authorizes EPA to set fleet-average standards that can be met with help from averaging, banking, and trading. Contrary to Petitioners’ view, such standards are no less “applicable to the emission of any air pollutant from any class or classes of new motor vehicles,” as required by Section 7521(a), than standards in the form of limits specific to individual vehicles. Fuel Br. 39. EPA’s longstanding standard-setting framework not only fully aligns with the statutory text, it also allows for less prescriptive standards with more flexibility for automakers. It should be upheld.¹⁶

¹⁶ Petitioners do not argue that EPA’s use of averaging alone, apart from electrification, implicates the major-question doctrine. *See* Fuel Br. 37 (“the Act does not address—let alone clearly authorize—the use of averaging, banking, and trading *to electrify the Nation’s vehicle fleet*” (emphasis added)).

A. Section 7521(a) authorizes EPA to set fleet-average standards using averaging, banking, and trading.

Section 7521(a) authorizes the promulgation of fleet-average standards. It directs EPA to set standards “applicable to the emission of any air pollutant from any *class* or *classes* of new motor vehicles” that cause or contribute to harmful air pollution. 42 U.S.C. § 7521(a)(1) (emphases added). The terms “class or classes” refer expressly to groups of vehicles. Thus, by its plain terms, Section 7521(a) authorizes EPA to set standards for a group of vehicles—like a fleet. The provision does not limit EPA to setting standards specific to individual vehicles, much less “unambiguously” require it. *Fuel Br.* 38.

Beyond authorizing EPA to set fleet-average standards, Congress gave EPA much discretion to determine the standards’ form and content and create suitable compliance mechanisms. Congress’s decision not to specify the appropriate form of standards was “a refusal to tie the agency’s hands,” which the Court should respect. S. Rep. No. 89-192, at 4 (1965) (“The committee believes that the exact standards need not be written legislatively but that the [agency] should adjust to changing technology.”); *Hermes Consol., LLC v. EPA*, 787 F.3d 568, 575 (D.C. Cir. 2015). EPA explained as much decades ago. *See* 55 Fed. Reg. at 30593/1; 54 Fed. Reg. 22652, 22666/1 (May 25, 1989).

And again, none of the challenged aspects of the standards are new. EPA has consistently used fleet-average standards and averaging, banking, and trading

provisions in multiple prior rules, for greenhouse gases as well as other pollutants. *See supra* at 15-18.

Moreover, this Court has upheld averaging as a permissible compliance mechanism for Section 7521 standards. *See NRDC v. Thomas*, 805 F.2d at 425. Noting the absence of “any clear congressional prohibition of averaging,” the Court held that “EPA’s argument that averaging will allow manufacturers more flexibility in cost allocation while ensuring that a manufacturer’s overall fleet still meets the emissions reduction standards makes sense.” *Id.*¹⁷; *cf. White Stallion Energy Ctr., LLC v. EPA*, 748 F.3d 1222, 1253 (D.C. Cir. 2014) (allowing averaging across multiple utility units under 42 U.S.C. § 7412(d), which “neither expressly allows nor disallows emissions averaging,” where averaging is a “more flexible, and less costly alternative” than unit-by-unit compliance, even though “this may allow individual units to exceed the emissions limitation”), *rev’d on other grounds, Michigan v. EPA*, 576 U.S. 743 (2015).

Averaging, banking, and trading also allow automakers to introduce emission-control technologies in an economically efficient way, in accordance with their business strategies, and to achieve Title II’s emission-reduction goals at less cost. *See* 75 Fed. Reg. at 25338/1. Fleet-average standards thus facilitate Congress’s direction in Section 7521(a) to give appropriate lead time “to permit

¹⁷ *See also infra* at 72 (addressing Petitioners’ reliance on dicta in *NRDC*).

the development and application of the requisite technology,” and give “appropriate consideration to the cost of compliance within such period.” 42 U.S.C. § 7521(a)(2).

B. Fleet averaging aligns with other Title II provisions.

EPA’s framework for setting emission standards not only is authorized by Section 7521(a), but also aligns with other Section 7521 subsections and with Title II’s compliance and enforcement provisions. Though Petitioners did not raise this issue in comments, they now argue—incorrectly—that these other provisions require that all standards be specific to individual vehicles. Section 7521(a) authorizes EPA to tailor standards for different pollutants and vehicle classes and model years to be as effective as possible, taking into account technological feasibility. That Congress itself directed EPA how to exercise its Section 7521(a) authority on certain emission standards for certain pollutants and model years—and directed EPA to take different approaches in different contexts—only reinforces the discretion afforded EPA in Section 7521(a).

1. Fleet averaging aligns with the Section 7521 provisions cited by Petitioners.

Petitioners point to scattered subsections in Section 7521 that supposedly demonstrate, contrary to the natural reading of subsection (a)(1), that emission standards must be specific to individual vehicles and cannot be expressed as fleet averages. Fuel Br. 39-42. Although automakers are subject to a fleetwide

standard, that standard simply aggregates what EPA has determined individual vehicles in a fleet can achieve. The fleet standard is therefore built on individual assessments. Further, each subsection that Petitioners point to accords with fleet averaging, especially when properly read in context with subsection (a)(1).

In subsection (b)(1), Congress established the stringency level for the model-years 1977-1979 standards for emissions of carbon monoxide, hydrocarbons, and nitrogen oxides, which EPA was then to promulgate under subsection (a). 42 U.S.C. § 7521(b)(1). Petitioners argue that because subsection (b)(1) refers to “emissions from such vehicles and engines,” all subsection (a) standards must be specific to individual vehicles rather than fleet averages. Fuel Br. 39-40.

On its face, however, subsection (b)(1) accords with fleet-average standards because the phrase “such vehicles and engines” can refer naturally to a group or fleet of vehicles. 42 U.S.C. § 7521(b)(1). Indeed, the phrase also appears in subsection (a)(1) itself, in harmony with the phrase “class or classes” in the preceding sentence. In contrast, Petitioners’ reading improperly requires the Court to insert the word “individual” before the plural “vehicles.” And even if Congress had intended for “such vehicles and engines” to require standards that apply to individual vehicles, nothing in subsection (b)(1) suggests that it constrains EPA’s subsection (a)(1) authority beyond the scope of (b)(1) itself, which addresses specified pollutants only in model-years 1977-1979.

Petitioners' reliance on subsection (b)(3) adds nothing.¹⁸ Fuel Br. 41. It allows EPA to impose standards less stringent than subsection (b)(1) standards for nitrogen-oxides emissions for up to 5% of production of model-years 1977-1979 light-duty vehicles, where an automaker "demonstrates that such waiver is necessary to permit the use of an innovative power train technology." 42 U.S.C. § 7521(b)(3). Under subsection (b)(3), an automaker identifies its total production for the year and the specific emission standards to which each vehicle was certified. EPA would then assess whether at least 95% of the fleet met the subsection (b)(1)(B) standard and whether the rest met the subsection (b)(3) standard. But this would be true whether each of those standards was a vehicle-specific standard, a fleet-average standard, or both. None of these approaches would be inconsistent with subsections (b)(1) and (b)(3), and nothing in either subsection speaks to EPA's authority under subsection (a)(1).

Petitioners next turn to subsection (g), which specifies that for model-years 1994-1996, an increasing percentage of each automaker's sales volume must comply with emission standards for nonmethane hydrocarbons, carbon monoxide, and nitrogen oxides. Fuel Br. 42. Petitioners assert without explanation that this is incompatible with averaging. Subsection (g) contemplates a phased-in tightening

¹⁸ Section 7521(b)(3) appears twice in the U.S. Code; this reference is to the second occurrence.

of the standards, with some parts of the fleet meeting more rigorous standards than other parts. 42 U.S.C. § 7521(g). This aligns with, and indeed supports, fleet-average standards, which also allow different vehicles in the fleet to emit at different levels to efficiently reduce overall emissions. *See, e.g.*, 62 Fed. Reg. 31192, 31222/2 (June 6, 1997) (Subsection (g) is an example of a “phased in” standard that confirms EPA’s authority to establish standards that are “fulfilled through compliance over an entire fleet”).

Subsection (m) is also consistent with fleet-average standards. Fuel Br. 42. This provision requires installation of diagnostic equipment to identify malfunctions that could cause individual vehicles to emit more pollution. 42 U.S.C. § 7521(m). Nothing here precludes fleet averaging. Diagnostic information on individual vehicles helps ensure compliance with fleet-average standards, which depends on the aggregate performance of individual vehicles.¹⁹

2. Fleet averaging aligns with Title II’s compliance and enforcement provisions.

EPA’s framework, with fleet-average and vehicle-specific in-use standards, also aligns with Title II’s compliance and enforcement provisions. EPA issues a

¹⁹ Petitioners’ roller-coaster analogy, Fuel Br. 40, is inapt. A height requirement to ride roller coasters applies to riders as individuals, not as a group. That makes sense because the harm being addressed is individualized: The roller-coaster operator must protect every rider from harm. But when it comes to air pollution, especially greenhouse-gas emissions, the pertinent harm comes from cumulative emissions. *See supra* at 10-11.

certificate of conformity for every vehicle, as required by 42 U.S.C. § 7525(a)(1). The certificate is conditioned on the automaker's compliance with both the in-use standard and the fleet-average standard. 75 Fed. Reg. at 25412/1-2; 40 C.F.R. §§ 86.1848-10(c)(2), (5), (9), 86.1865-12(j)(2). Automakers also warrant at the time of sale that each new vehicle is designed to comply with all applicable emission standards and will be free from defects that may cause noncompliance. 42 U.S.C. § 7541. Automakers (and EPA) then test vehicles post-sale, to obtain "real-world in-use data representing the majority of certified vehicles." 75 Fed. Reg. at 25474/3; 40 C.F.R. §§ 86.1865-12(l)(2), 86.1848-10(c)(9), 600.010(d). This "ensure[s] that an individual vehicle complies with the [greenhouse-gas] standards in-use," and throughout the vehicle's useful life. 75 Fed. Reg. at 25476/1; *see id.* at 25468/3.

Petitioners err in arguing that fleet averaging is incompatible with the requirement for a certificate of conformity at the time of sale and the need for automakers to give a compliance warranty. Fuel Br. 43-47. EPA is not certifying, and automakers are not warranting, an unknown. The certificate and the warranty are both based on the automaker's compliance plan and ability to manufacture vehicles meeting particular emission specifications. *See* 40 C.F.R. §§ 86.1848-10(c)(2), (5), (9), 86.1865-12(j)(2). If, after the model year ends, an automaker's fleet-average emission level exceeds its fleet-average standard, the automaker must

make up the deficit with surplus credits from other years or buy credits.

Otherwise, EPA will void certificates of conformity for enough individual vehicles until the fleet-average standard is achieved, rendering the automaker liable for penalties. 75 Fed. Reg. at 25482/1-2; 40 C.F.R. § 86.1865-12(k)(8). Thus, fleet averaging simply shifts some elements of the compliance demonstration to after the model year ends. Nothing in the statute precludes this shift, which has been in place and successfully administered by EPA for decades. *See* 56 Fed. Reg. 25724, 25734 (June 5, 1991) (adopting similar enforcement approach where multiple standards apply to each automaker’s fleet under Section 7521(g)); *see generally supra* at 15-18.

Next, Petitioners point to 42 U.S.C. § 7525(a)(2), which requires EPA in some cases to test emission-control systems to determine whether they enable vehicles to conform with standards Congress prescribed in Section 7521(b). Fuel Br. 40-41. Petitioners assert that this obligation precludes EPA’s regulatory approach. It does not. Section 7525(a)(2) prescribes duties relating to standards under Section 7521(b)—not Section 7521(a), the provision at issue here.

Moreover, in Section 7525(a)(2), Congress had a specific reason to speak to individual vehicles. Added in 1970, it enabled a private party that developed a new “emission control system,” such as a new catalyst, to submit a vehicle or engine incorporating that system for testing “to determine whether such system

enables such vehicle or engine to conform to the [Subsection 7521(b)] standards.” 42 U.S.C. § 7525(a)(2); *see* Environmental Policy Division of the Congressional Research Service, Volume 1, 93d Cong., 2d Sess., A Legislative History of the Clean Air Amendments of 1970, at 128, 200 (Comm. Print 1974). It was sensible for Congress to establish this mechanism for testing new technologies in the context of specific vehicles and individuals, rather than fleets. There is no basis in Section 7525(a)(2) to think Congress meant to prohibit fleet averages even under Section 7521(b), let alone Section 7521(a). To the extent that it is relevant, Section 7525(a)(2) confirms that Congress intended EPA to consider all feasible emission-control technologies, even those that had not been developed as of 1970.

Petitioners also argue that a fleet-average standard conflicts with the provision in Section 7524 that EPA may assess per-vehicle penalties for violating emission standards or other requirements. Fuel Br. 46-47. But violations of fleet-average standards are enforced by voiding individual vehicles’ certificates of conformity to bring the fleet into compliance—a per-vehicle offense for each of those vehicles introduced into commerce. *See* 40 C.F.R. § 86.1865-12(k)(8). In addition, automakers can be penalized for prohibited acts like selling uncertified vehicles or failing to honor the emissions warranty, all of which apply under a fleet-average standard in the same way as they do under vehicle-specific standards. 75 Fed. Reg. at 25482/3.

Nor do the two concerns the *NRDC* Court raised in dicta in 1986 help Petitioners. Fuel Br. 50. First, the Court noted that Section 7525(a)'s testing and certification provisions refer to vehicles, not to classes of vehicles. *NRDC v. Thomas*, 805 F.2d at 425 n.24. As explained above, however, the certification is conditioned not only on compliance with the fleet-average standards, but also on compliance with the vehicle-specific in-use standard.²⁰ 40 C.F.R. §§ 86.1848-10(c)(2), (5), (9), 86.1865-12(j)(2).

Second, the *NRDC* Court noted that in legislative history to the 1970 amendments, Congress indicated that each prototype, rather than the average of prototypes, should meet emission standards. *NRDC v. Thomas*, 805 F.2d at 425 n.24; *see also* Fuel Br. 48. EPA addressed this concern in the preamble to a 1990 rule. Congress's concern was that "we did not have an adequate testing program" to "get to this problem of cleaning up the auto emissions," *NRDC v. Thomas*, 805 F.2d at 425 n.24, and that the testing of a small number of prototypes and averaging of those prototypes did not provide an accurate assessment of vehicle compliance with standards. But EPA's current certification and in-use standards are vehicle-specific and "ensure that each engine meets the [applicable] limit." 55

²⁰ The *NRDC* Court also noted the "counterargument" to its concern, that "the manner of testing deemed appropriate or the content of the standards themselves is within the discretion of the agency." *NRDC v. Thomas*, 805 F.2d at 425 n.24.

Fed. Reg. at 30594/1.²¹ Averaging as used in the current program does not create any uncertainty as to whether automakers are in compliance with the standards because every vehicle must achieve its certified emission performance as part of the fleetwide compliance framework.

Petitioners also assert that compliance with a fleet average is inconsistent with 42 U.S.C. § 7602(k), which defines emission standard as “a requirement ... which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis.” Petitioners claim one cannot “know” “on a continuous basis” whether an automaker is meeting its fleet-average standard. Fuel Br. 45. It is not clear that Section 7602(k) applies to Title II,²² but even if it does, Section 7602(k) requires standards to *apply* continuously, not that compliance be *measured* continuously. The effect of the fleet-average standard (and the in-use standard) is to control emissions from vehicles on a continuous basis, meaning without any gaps in coverage or applicability, even if compliance is measured later.

²¹ Congress explicitly recognized that the D.C. Circuit had addressed the issue of averaging and endorsed the scope of EPA’s authority when adopting the 1990 amendments. *See* Statement of the Case § IV.

²² *Motor & Equip. Mfrs. Ass’n*, 627 F.2d at 1112 n.35.

3. Petitioners' arguments about other statutes and statutory provisions also fail.

Petitioners' three remaining arguments are variations on the theme that because Congress legislated "with respect to" average emissions in other contexts, EPA lacks authority to adopt that approach in Section 7521(a)(1). Fuel Br. 47. But those provisions say little about EPA's authority under Section 7521.

First, Petitioners point to 42 U.S.C. § 7545(k). *Id.* at 47-48. Under that provision, EPA sets standards for reformulated gas in specified nonattainment areas, to require the greatest achievable reduction in emission of volatiles and toxics. 42 U.S.C. § 7545(k)(1)(A). EPA must issue regulations that will maintain "the reduction of the average annual aggregate emissions" achieved in specified years, and if the reduction in certain geographic areas fails to maintain that level, then EPA must take certain actions. *Id.* § 7545(k)(1)(B)(ii), (v)(II). The reference in Section 7545(k) to "average annual aggregate emissions" is narrow and specific to a remedial context—how to measure emission reductions in specific regions. It says nothing about EPA's authority under Section 7521 to establish emission standards that automakers comply with in part on a fleetwide basis.

Second, Petitioners point out that the Energy Policy and Conservation Act directs NHTSA to set average fuel-economy standards. Fuel Br. 47-48. But Section 7521(a)(1) is necessarily written more broadly because, unlike NHTSA, EPA regulates multiple different pollutants, which may require standards with

distinct structures. As explained above, *supra* at 40-46, it makes sense that Congress would leave for EPA to determine the form and content of the emission standards that EPA is expressly authorized to promulgate. *See Massachusetts*, 549 U.S. at 532 (noting that the agencies can “avoid inconsistency” when setting standards); 55 Fed. Reg. at 30593/1.

Third, Petitioners argue that because banking and trading are expressly authorized in other Clean Air Act programs, those authorizations would be superfluous if EPA has the discretion to adopt a banking-and-trading program in Section 7521(a)(1) standards. *Fuel Br.* 49. But all of the programs Petitioners cite *require* banking and trading credits. That differs from a grant of discretion to create a program to bank and trade credits, as Congress chose for Section 7521.

C. Section 7521(a) authorizes EPA to include electric vehicles when setting standards.

Petitioners’ fallback argument is that even if emission standards can be expressed as fleet averages, EPA cannot include electric vehicles in those averages. *Fuel Br.* 50-61. That is wrong. Electric vehicles are motor vehicles. *See supra* at 42; 42 U.S.C. § 7550(2). Electric vehicles are thus treated like every other motor vehicle—including in averaging.

1. A “class” of motor vehicles subject to emission standards can include electric vehicles.

Section 7521(a)’s text debunks Petitioners’ theory that emission standards can apply only to vehicles that actually emit pollutants (and thus not to electric vehicles). Fuel Br. 52-56. The standards apply to “the emission of any air pollutant *from any class or classes* of new motor vehicles ... *which* in [EPA’s] judgment *cause, or contribute to,*” dangerous air pollution. 42 U.S.C. § 7521(a)(1) (emphases added). The phrase “cause, or contribute to” modifies emissions from “class or classes.” In other words, the thing that causes or contributes to air pollution—the thing that is regulated by the standards—is emissions from a “class” of motor vehicles. It is not, as Petitioners urge, emissions from individual vehicles. Fuel Br. 52. For Petitioners to be right, Section 7521(a) would have to be rewritten to say the emission of air pollutants “*from any new motor vehicle.*” The Court should reject the invitation to strike the phrase “class or classes” from the statute.

Further, it is ordinarily only emissions from a group of vehicles—a class, not an individual vehicle—that could “cause” dangerous air pollution. The only sensible way to read the “cause, or contribute to” clause, then, is to modify emissions from a “class or classes” of vehicles, rather than emissions from individual vehicles.

The rule of last antecedent does not alter that conclusion. Fuel Br. 54. That rule is sometimes used to interpret “a list of terms or phrases followed by a limiting

clause.” *Lockhart v. United States*, 577 U.S. 347, 351 (2016). But Section 7521(a)(1) presents no such list, and thus no conundrum of whether the final modifier applies to everything in a preceding list or just the last item.

Nor does the term “class” itself require all vehicles within the class to emit the pollutant, notwithstanding Petitioners’ argument that “*all* the members of the class” must be the same. Fuel Br. 55. While EPA must be responding to pollution from a class as a whole, in this context of deciding ways to group vehicles designed for transport, the phrase “class or classes” is most naturally read to mean functional groups, like cars and trucks with certain transporting capacities. *See* 40 C.F.R. § 86.1803-01; 42 U.S.C. § 7550(2).²³ Congress too thought of “classes” as functional groups when it legislated criteria-pollutant standards for heavy-duty vehicles and specified that EPA “may,” but is not required to, base classes on “gross vehicle weight, horsepower, type of fuel used, or other appropriate factors.” 42 U.S.C. § 7521(a)(3)(A)(ii). And given Section 7521(a)’s technology-based premise, it is perverse to think that Congress would have wanted emission-control technology that reduced 99%—but not 100%—of vehicle emissions. Rather, Congress wanted EPA to be able to push for more progress in controlling

²³ That is how EPA and other agencies have construed “class” in the mobile-source program. *See, e.g.*, 74 Fed. Reg. at 66537 (defining regulated class under Section 7521(a) as “passenger cars, light-duty trucks, motorcycles, buses, and medium and heavy-duty trucks”); 81 Fed. Reg. at 73485; 65 Fed. Reg. at 6702/1.

emissions. Thus, there is no evidence that Congress intended the word “class” to require grouping vehicles based on their emission levels or the effectiveness of their emission controls. Fuel Br. 53-56.

The fact that electric vehicles are subject to greenhouse-gas emission standards is demonstrated by Petitioners’ own argument. The 17% electric-vehicle penetration rate that Petitioners spotlight covers plug-in hybrids, which run on both electricity and gasoline. *See supra* n.12; 40 C.F.R. § 86.1803-01. Plug-in hybrids, in other words, emit greenhouse gases. So do battery electric vehicles, through leaks in their air-conditioning systems. *See* 74 Fed. Reg. 49454, 49527 (Sept. 28, 2009) (estimating greenhouse-gas emissions due to refrigerant leakage at about 13.6 g/mi per vehicle or 4.3% of all light-duty emissions). Electric vehicles thus fall within the class of vehicles subject to emission standards even under Petitioners’ cramped reading of Section 7521(a).

And there is nothing “faux” about regulatory averages that include electric vehicles. Fuel Br. 56. Emission standards apply to all motor vehicles in the relevant class. Automakers count the emissions of every vehicle in their fleet when calculating fleet-average emissions. Electric vehicles are thus treated just like any other vehicle with emission-control technology. For that reason, averaging is technology-neutral. The impact a particular technology has on a fleet’s performance depends on its effectiveness. And electric vehicles are very

effective at reducing greenhouse-gas emissions. But that effectiveness does not take electric vehicles outside its class or EPA's regulatory authority.

In sum, like other motor vehicles, electric vehicles are subject to Section 7521(a)(1) standards, and they are properly included in the light-duty fleet for averaging purposes.

2. The standards are technologically feasible.

Petitioners next argue that technological feasibility must “meaningfully constrain the emission standards that EPA sets under Section [7521](a).” Fuel Br. 58. True enough. But they err in saying that EPA set aside technical feasibility and “simply decide[d] to require production of fewer internal-combustion vehicles.” *Id.* In fact, EPA's modeling assesses specific control technologies as well as constraints on deployment of those technologies, e.g., due to costs and redesign cycles, to ensure that compliance with the standards is technologically feasible. *See supra* at 19-23.

As explained above, EPA modeled how automakers might respond to a given set of standards, including the emission-control technologies they might use. *Supra* at 19-21. Electrification is simply one of the many technologies that EPA considered in assessing the standards' feasibility. *See* 42 U.S.C. § 7521(a)(2) (emission standards must account for lead time and compliance costs); *see also supra* at 8, 41 (available technology can include electrification). The agency's

projected penetration rate of those technologies “represents one out of many possible compliance pathways for the industry. The standards are performance-based and do not mandate any specific technology for any manufacturer or any vehicles.” 86 Fed. Reg. at 74484/2-3. It is automakers who actually decide which technologies to use to meet their standards. *See* Resp. to Comments at 12-79, JA1076. Automakers have already invested in electrification. 86 Fed. Reg. at 74486/1-2. They plan for battery vehicles and plug-in hybrids to make up some 23% of new U.S. light-vehicle sales in 2026. Auto Alliance Comments at 7-8, JA0575-76 (citing August 2021 I Markit report). And “even under the less stringent [2020] standards, manufacturers ha[d] indicated that the number of [electric] models will increase to more than 80 by [model-year] 2023.” 86 Fed. Reg. at 74486/1. As EPA aptly summarized, “a shift to zero-emission vehicle technologies is well underway.” *Id.* EPA thus found, based on an extensive technical record, that the standards are technologically feasible.

Petitioners’ final two arguments fare no better. First, the 1990 Clean Air Act amendments directed EPA to set standards for clean-fuel vehicles operating on clean alternative fuel including electricity, but only on a targeted regional basis, which Petitioners say highlights the lack of authority in Section 7521(a) to regulate electric vehicles. Fuel Br. 60. This was a pilot project to advance alternative fuels and technologies, not a limit on EPA’s Section 7521(a) authority. *See* H.

Rep. No. 101-490, pt. 1, at 283 (1990), 1990 WL 1222133, at *65-66 (Congress wanted “to encourage a broad range of vehicles,” including those using electricity, and break the “chicken and the egg” supply-and-demand problem among automakers, consumers, and fuel producers). Indeed, the program is another example of Congress viewing electrification as a key emission-control technology for vehicles.

Second, the 1992 Energy Policy Act blocked NHTSA from considering the fuel economy of electric vehicles when determining the maximum feasible fuel-economy level the automakers can achieve, which Petitioners say Congress did not need to do when enacting Section 7521(a)(1) because it “did not contemplate” standards using averaging. Fuel Br. 61. But by 1992 EPA had already begun using averaging, and although Congress chose to limit NHTSA, it notably did not do so in the Clean Air Act. At any rate, any limitation on NHTSA’s consideration in setting fuel-economy standards under its authorizing statute is irrelevant to what the Clean Air Act authorizes EPA to do. As the Supreme Court has recognized, the two agencies have distinct sources of authority and distinct responsibilities to the public. Resp. to Comments at 16-40, JA1095 (citing *Massachusetts*, 549 U.S.

at 532). EPA’s authority to regulate greenhouse-gas emissions thus exists “separate and apart” from NHTSA’s authority to regulate fuel economy. *Id.*²⁴

In sum, Section 7521(a) authorizes EPA to set emission standards as it did here: Establish fleet-average standards, which can be met with the help of averaging, banking, and trading, and which apply to all motor vehicles in the regulated class, including electric vehicles. EPA’s interpretation of Section 7521(a) may be affirmed even without consideration of the deference due the agency. *Guedes*, 45 F.4th at 313. But at a minimum, EPA’s construction of Section 7521(a) is reasonable and may be sustained as such. *See, e.g., Wash. All.*, 50 F.4th at 192.

V. The 2021 rule is reasonable.

Petitioners raise a handful of record-based arguments under arbitrary-and-capricious review. None has merit.

A. EPA treated upstream emissions of all vehicles, electrified or not, the same way.

EPA considered upstream emissions for all motor vehicles when *evaluating standards* to anticipate their effects but not when *assessing compliance* with

²⁴ Petitioners claim that EPA “decoupled its rulemaking from NHTSA’s only when it purported to discover new authority in old provisions of the Clean Air Act.” Fuel Br. 34. But EPA always sets emission standards in accordance with its Clean Air Act authority whether or not it acts alongside NHTSA. *E.g.*, 74 Fed. Reg. at 49460/3-67/2. EPA’s obligation to protect the public is independent of NHTSA’s mandate to promote energy efficiency. *See Massachusetts*, 549 U.S. at 532.

standards that have been set. Petitioners think this somehow “put[] a thumb on the scale in favor of electrification.” Fuel Br. 62. But EPA reasonably applied the same emission-counting methodology to all vehicles.

In evaluating possible standards, EPA considered their reasonably foreseeable effects on air quality. Those impacts include emissions directly from the vehicle, like tailpipe emissions. *See* 86 Fed. Reg. at 74488/3 & tbl. 34, 74498/2-3. They also include “significant” indirect emissions, notably emissions “associated with the fuels used to power those vehicles (both at the refinery and the electricity generating unit),” known as upstream emissions. *Id.* at 74488/3; *see* Resp. to Comments at 16-41, JA1096.²⁵ The key is that this upstream analysis applied to both gasoline- and electricity-powered vehicles.

In assessing compliance, however, the relevant emissions are those emitted by vehicles, rather than by refineries and other sources *not* regulated by Section 7521. 86 Fed. Reg. at 74446/3. Upstream emissions thus play no role in compliance. That is true whether the vehicle runs on gasoline or electricity. *Id.* It

²⁵ The Clean Air Act does not require EPA to treat emissions attributable to petroleum refining, electricity generation, or other indirect emissions as emissions attributable to motor vehicles. *See* Resp. to Comments at 16-41, JA1096 (noting that the Act’s structure “evidences a clear divide between stationary sources (regulated under Title I) and mobile sources (regulated under Title II)”). That said, in setting standards, EPA considered the “most significant indirect impacts.” *Id.* at 16-42, JA1097. Petitioners do not challenge how far upstream EPA drew the line. Fuel Br. 62-64.

was reasonable for EPA to assess compliance with vehicle-emission standards using direct emissions, just as it was reasonable for EPA to apply this approach to all vehicles.

Petitioners do not challenge this approach as it applies to most vehicles. But for plug-in hybrids and battery vehicles, they think automakers should count upstream emissions in the compliance analysis. Fuel Br. 63-64; *see supra* at 49-50. Setting aside whether that approach even makes sense, it does not undercut the reasonableness of EPA's equal-treatment approach.

Besides, Petitioners conflate standard-setting considerations with the compliance metric. EPA assessed the standards' reasonably foreseeable impacts—and thus considered significant upstream emissions—when assessing potential standards. The compliance analysis, by contrast, asks whether automakers meet the standards. It is not meant to re-assess the standards' overall emission impacts. The Court should reject Petitioners' argument.

B. EPA properly considered costs and benefits.

1. Monetized climate benefits were not a basis for the rule, and EPA's analysis is sound anyway.

Petitioners attack EPA's consideration of monetized climate benefits in the cost-benefit analysis. That argument misunderstands these benefits' role and falls far short of Petitioners' burden on review. State Br. 24-26; *see Nat'l Ass'n of Home Builders v. EPA*, 682 F.3d 1032, 1040 (D.C. Cir. 2012) (noting that courts

review cost-benefit analyses deferentially and given their complex nature, petitioners' burden to show error is high).

To determine the standards' appropriate level, EPA focused on three essential factors in its principal analysis: (1) the amount of emission reductions; and feasibility in the form of (2) sufficient lead time and (3) reasonable compliance costs. 86 Fed. Reg. at 74498/2, 74499/2-500/1; *see id.* at 74493/2-98/3. These factors come from Section 7521(a), which directs EPA to regulate emissions of air pollutants that endanger the public, while accounting for compliance costs and lead time to develop and apply requisite technologies. 42 U.S.C. § 7521(a)(2). In deciding the standards' stringency, then, EPA balanced emission reductions with feasibility considerations. Petitioners do not challenge any part of this analysis.

What they do challenge is EPA's secondary, economic analysis, which examines the standards' costs and benefits. *E.g.*, 86 Fed. Reg. at 74509-11 (tbls. 43-48). This cost-benefit analysis is not required (or even mentioned) by Section 7521(a). It was instead performed under Executive Order 12866. *Id.* at 74498/2-3. In showing that the standards are expected to have substantial net benefits, the cost-benefit analysis "reinforce[d]" EPA's choice of the final standards. *Id.* at 74511 (tbl. 48), 74500/1, 74498/3.

Petitioners zero in on one aspect of that analysis, EPA's climate-benefits calculation. State Br. 24-26. As background, the Executive Branch has long

sought to monetize the “net harm to society” associated with marginal increases of greenhouse-gas emissions. Reg. Impact Analysis at 3-30, JA0866. This monetized estimate of the damages associated with greenhouse-gas emissions is known as the social cost of greenhouse gases. *Id.*; *see, e.g.*, 75 Fed. Reg. at 25520/1-24/2.

In February 2021 an interagency working group (of which EPA is a member) developed interim estimates of the social cost of greenhouse gases. Reg. Impact Analysis at 3-30 to 31, JA0866-67 (citing technical support document²⁶). These estimates offer a range of discount rates for calculating monetized climate impacts. *Id.* After independently evaluating the interim estimates, EPA concluded that, though likely underestimates, they reflected the best currently available science and were appropriate to use here. *Id.*; Resp. to Comments at 14-105, JA1092. So EPA used the 2021 interim estimates to calculate the standards’ monetized climate benefits. 86 Fed. Reg. at 74490/1. Depending on the discount rate, these benefits ranged from \$31 to \$390 billion between 2023 and 2050. *Id.* at 74511 (tbl. 47).

But monetized climate benefits were not part of EPA’s primary, statutory analysis. *Id.* at 74498/2 (distinguishing statutory analysis from cost-benefit analysis). They featured only in the secondary, economic analysis that examined a

²⁶ Available at https://www.whitehouse.gov/wp-content/uploads/2021/02/TechnicalSupportDocument_SocialCostofCarbonMethaneNitrousOxide.pdf (last visited Feb. 23, 2023).

range of costs and benefits. *Id.* at 74498/2-3. And EPA affirmed that the specific level of monetized climate benefits was “not material” to the final standards. *Id.* at 74498/2. That is, however climate benefits were quantified, EPA “would still adopt the standards of this final rule.” Resp. to Comments at 14-105, JA1092; *see* 86 Fed. Reg. at 74498/2.²⁷ Because the disputed standards “do not depend on” the 2021 interim estimates, and because Petitioners do not challenge EPA’s principal, statutory analysis, the Court need not and should not reach their arguments. Resp. to Comments at 14-105, JA1092; State Br. 24-26.

Even on the merits, Petitioners’ three arguments falter. First, the interim estimates properly considered global impacts. State Br. 25. Climate change harms U.S. interests both domestically and abroad through (1) impacts within U.S. borders; (2) impacts outside U.S. borders that affect the welfare of U.S. citizens and residents; and (3) spillover impacts of climate actions elsewhere on U.S. interests. Resp. to Comments at 14-93 to 94, JA1090-91; Reg. Impact Analysis at 3-31 to 32, JA0867-68. Focusing on climate impacts occurring solely within U.S. borders, as Petitioners urge, would “underestimate” benefits of greenhouse-gas mitigation for U.S. citizens and residents. Resp. to Comments at 14-94, JA1091;

²⁷ Petitioners focus on costs and benefits using a 3% discount rate. State Br. 25-26. In that scenario, even if there were no monetized climate benefits, fuel savings alone (\$320 billion) would exceed the standards’ total costs (\$300 billion). *See* 86 Fed. Reg. at 74509-10 (tbls. 43-44). Of course, it would be arbitrary to assign zero value to reductions of emissions that the standards are designed to address.

see Zero Zone, Inc. v. U.S. Dep't of Energy, 832 F.3d 654, 678-79 (7th Cir. 2016) (upholding consideration of global impacts in climate analysis). Further, climate change is a global problem, and the United States has found the use of global estimates helpful in encouraging emission reductions in other countries that will benefit U.S. citizens. Reg. Impact Analysis at 3-32, JA0868. It was thus reasonable for EPA to use estimates that account for global impacts.

Nor does the Clean Air Act bar EPA from considering global impacts. The best evidence Petitioners can muster for their contrary view is the Act's goal of improving the nation's air quality, hardly a command to ignore impacts to U.S. interests. 42 U.S.C. § 7401(b)(1); *see* 74 Fed. Reg. at 66516/3-17/1; Resp. to Comments at 14-106 to 107, JA1093-94; State Br. 25. As for Petitioners' invocation of the presumption against extraterritorial application, it is beside the point, for it is undisputed that the 2021 rule applies only to vehicles sold in the United States. State Br. 25; *see* Resp. to Comments at 14-106, JA1093.

Second, EPA explained the discount rates used to calculate climate benefits. Reg. Impact Analysis at 3-31 to 33, JA0867-69; State Br. 25-26. Circular A-4, EPA noted, recommends using discount rates of 3 and 7% as default values. Reg. Impact Analysis at 3-32, JA0868. But Circular A-4 recognizes that in intergenerational analyses—like estimating climate impacts—“special ethical considerations arise” and the analysis may “appropriately” use lower discount

rates. *Id.* at 3-33, JA0869; *see* Circular A-4 at 21, JA0814 (explaining that discount rates of “1 to 3 percent” can be appropriate in these cases). And the interagency working group (which includes the Office of Management and Budget, the author of Circular A-4) found that the 7% discount rate indeed underestimates climate impacts; it recommended using a range of lower rates (2.5, 3, and 5%). Reg. Impact Analysis at 3-32 to 33, JA0868-69. After independently concluding that the recommendation makes sense, EPA used the lower rates. *Id.* at 3-30 to 31, JA0866-67. The Court should reject Petitioners’ claim that EPA offered no reasonable explanation here. State Br. 25.

Finally, there is no inconsistency in EPA’s analysis. *Id.* at 26. To calculate climate benefits, the agency used discount rates recommended for that very purpose. Reg. Impact Analysis at 3-39, JA0875. It used Circular A-4’s default discount rates to calculate other costs and benefits, like fuel savings. 86 Fed. Reg. at 74443-44 (tbl. 4 & n.c). It is unclear why Petitioners think this a problem. If their point is that EPA should have used a single discount rate to calculate everything, the agency did that too: The 3% rate is both a Circular A-4 default and used in the interim social-cost estimates. Reg. Impact Analysis at 3-32 to 33, JA0868-69.

2. Evidence supports the projected \$320 billion in fuel savings.

Petitioners dispute the projected fuel savings of \$320 billion. Fuel Br. 64-67. But EPA’s projection is supported by ample evidence.

Because technologies that reduce greenhouse-gas emissions can also reduce or even eliminate gasoline consumption, one benefit of the standards is to save consumers money on fuel. 86 Fed. Reg. at 74509-10 (tbl. 44); Reg. Impact Analysis at 6-5, JA0949. EPA estimated net fuel savings (at a 3% discount rate) of about \$320 billion through 2050. 86 Fed. Reg. at 74510 (tbl. 44). This figure exceeds the rule’s total costs by about \$20 billion. *Id.* at 74509 (tbl. 43).

Fuel savings are an anomaly under standard economic theory, which posits that in a perfect market—populated by “financially rational” actors armed with “full information,” and where “perfect competition” exists—consumers would simply buy more fuel-efficient vehicles to save money.²⁸ But practice has shown that the vehicles market is far from perfect. This market failure—new fuel-savings technologies not being adopted even though savings exceed costs—is called the energy efficiency gap. 86 Fed. Reg. at 74500/2. For years, EPA has seen this gap in a range of emission-control technologies. *Id.* at 74500/2-3 & n.190. Yet once EPA adopted stricter emission standards, those technologies proliferated without a

²⁸ Proposed Determination on the Appropriateness of the Model Year 2022-2025 Light-Duty Vehicle Greenhouse Gas Emissions Standards under the Midterm Evaluation (Nov. 2016) at A-27, JA0121.

hitch, allowing consumers to realize fuel savings. *Id.*; Resp. to Comments at 17-7 to 8, JA1099-100.

Petitioners make two arguments about the energy efficiency gap. First, they accuse EPA of not offering evidence of the gap's existence. They cite only EPA's observation that there is no consensus on *why* the gap exists. Fuel Br. 65-66 (citing 86 Fed. Reg. at 74501, JA68). But that does not erase the gap's existence. And Petitioners do not question EPA's own experience with the energy efficiency gap, which the agency has documented for over a decade. Fuel Br. 64-67; *see* 86 Fed. Reg. at 74500/3 & n.190; 75 Fed. Reg. at 25511/2 ("Considerable research findings indicate that the Energy Paradox is real and significant").

Second, Petitioners contend that no market failure (and thus no gap) exists because the reason that fuel-saving technologies are underused is that they impose hidden costs by way of inferior vehicle performance. Fuel Br. 66-67. But EPA considered and rejected this theory after reviewing many published studies. 86 Fed. Reg. at 74500/3-01/1; Reg. Impact Analysis at 8-1 to 3, JA0986-88. Those studies found that "automakers have improved fuel economy without adversely affecting other vehicle attributes" and that fuel-saving technologies do not affect perceptions about vehicle quality. Reg. Impact Analysis at 8-1 to 2, 8-30, JA0986-87, 1015 (citing published studies and presentation before the Society of Benefit-Cost Analysis). In fact, those technologies can enhance vehicle performance. *Id.*

at 8-3, 8-30, JA0988, 1015 (citing published study). Other studies identify problems in the “hidden costs” theory’s assumptions. *Id.* at 8-2 to 3, 8-30, JA0987-88, 1015 (citing published study). EPA thus did not reject the theory “largely on a single working paper,” but on a reasonable analysis. Fuel Br. 67.

3. EPA properly counted the costs.

Petitioners’ final arguments, that EPA underestimated the rule’s costs, fare no better. They do not overcome the great deference due to EPA’s cost-benefit analysis. *Home Builders*, 682 F.3d at 1040.

First, EPA considered projected long-term electricity costs, shown in Figure 4-4 of the Regulatory Impact Analysis. JA0915. Citing this figure, Petitioners accuse EPA of “estimat[ing] without explanation.” Fuel Br. 67. But Figure 4-4 says that the estimates come from “AEO 2021,” the Department of Energy’s 2021 Annual Energy Outlook. Reg. Impact Analysis at 4-34, JA0915; *see id.* at 3-24, JA0865 (explaining what AEO means). EPA thus explained that it used energy prices forecasted by the Department of Energy, which Petitioners cannot seriously think is “an agency with no expertise in the electricity market to project future costs.” Fuel Br. 68. It was also reasonable to use the Energy Outlook because it projects prices through 2050, the period being analyzed in the rulemaking. Reg. Impact Analysis at 4-34, JA0915 (figure 4-4).

Nor do Petitioners' proffered short-term projections undercut that conclusion. For one thing, this Court cannot consider extra-record, post-hoc material like the short-term projections. Fuel Br. 68; *see* 42 U.S.C. § 7607(d)(7)(A). For another, short-term price fluctuations in 2022 say little about long-term trends. They are, at any rate, irrelevant: The Clean Air Act "does not contemplate use of a 'crystal ball.'" *Int'l Harvester*, 478 F.2d at 642. A projection that later turns out to be wrong does not make EPA's rule arbitrary when it was finalized. *See Growth Energy*, 5 F.4th at 15 (noting deference to predictive judgments and requiring only acknowledgement of factual uncertainties and identification of persuasive considerations). As for Petitioners' contention that projections of California's electricity rate exceed the Energy Outlook's projections, EPA considered and declined to project national rates based on only California's numbers. Resp. to Comments at 12-87, JA1084. Petitioners do not explain why that response was unreasonable. Fuel Br. 67-69.

Second, Petitioners fault EPA for not considering regulating gasoline octane levels. *Id.* at 69. But given the short lead time, EPA did not expect automakers to redesign their vehicles for higher octane levels. Resp. to Comments at 12-104, JA1089 (noting that octane requirements were beyond the rule's scope). Nor did EPA need to consider "every alternative proposed," only "significant and viable" and "obvious" ones. *Nat'l Shooting Sports Found., Inc. v. Jones*, 716 F.3d 200,

215 (D.C. Cir. 2013). And promulgating a rule to regulate gasoline octane for the first time is not a significant, viable, or obvious alternative to simply tightening existing emission standards.²⁹

CONCLUSION

The Court should dismiss or deny the petitions for review.³⁰

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²⁹ There are also unresolved questions about EPA's authority over octane. *See* 42 U.S.C. § 7545(c) (authorizing EPA to regulate fuel when an emission product contributes to harmful air pollution or would impair motor-vehicle emission controls); 85 Fed. Reg. at 24386/3, 24388/3-89/2 (discussing comments solicited on this issue in 2020). Petitioners proffer a comment asserting—without citation—EPA's supposed authority over octane. Fuel Br. 68 (citing Resp. to Comments at 26-177, JA1250); Nat'l Corn Ass'n Comments at 7, JA0383 (cited at Resp. to Comments at 26-177). This sort of comment does not warrant a response, let alone undermine the rule's reasonableness. *See Nat'l Shooting*, 716 F.3d at 215.

³⁰ If the Court concludes otherwise, EPA requests the opportunity to submit a brief on remedies.

CERTIFICATES OF COMPLIANCE AND SERVICE

I certify that this brief complies with Fed. R. App. P. 32(a)(5) and (6) because it uses 14-point Times New Roman, a proportionally spaced font.

I also certify that this brief complies with the Court's September 22, 2022, order because by Microsoft Word's count, it has 20,732 words, excluding the parts of the brief exempted under Rule 32(f).

Finally, I certify that on April 27, 2023, I electronically filed this brief with the Court's CM/ECF system, which will serve each party.

/s/ Daniel R. Dertke
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